

## Plastics Interlaboratory Testing Program

### Web Summary Report #124, 4th Qtr 2022

---

[About CTS and the Plastics Interlaboratory Program](#)

[Key for Web Summary Report](#)

[Results Summary for this Report](#)

#### Analysis Analysis Name

[704 Tensile Stress at Yield, Plastic Samples](#)  
[705 Tensile Stress at Break, Plastic Samples](#)  
[706 Percent Elongation at Yield, Plastic Samples](#)  
[708 Modulus of Elasticity, Plastic Samples](#)  
[710 Deflection Temp. Under Flexural Load \(1.82 MPa\)](#)  
[711 Deflection Temp. Under Flexural Load \(0.455 MPa\)](#)  
[712 Temp. of Deflection Under Flexural Load 1.80 MPa](#)  
[715 Vicat Softening Temperature \(Rate A\)](#)  
[716 Vicat Softening Temperature \(Rate B\)](#)  
[718 Specific Gravity](#)  
[720 Flexural Modulus](#)  
[721 Flexural Stress at 5% Strain](#)  
[722 Flexural Stress at Yield](#)  
[730 Tensile Stress at Yield, ISO Plastic Samples](#)  
[731 Tensile Stress at Break, ISO Plastic Samples](#)  
[732 Percent Strain at Yield, ISO Plastic Samples](#)  
[734 Modulus of Elasticity, ISO Plastic Samples](#)  
[736 Flexural Modulus, ISO Plastic Samples](#)  
[737 Flexural Stress at 3.5% Strain](#)  
[738 Flexural Stress at Yield](#)  
[750 Flow Rates of Thermoplastics \(2.16 kg load\)](#)  
[755 Moisture Content of Plastics](#)  
[757 Ash Content in Thermoplastics](#)  
[758 Thermogravimetric Analysis](#)  
[760 DSC Crystallization Temperature](#)

#### Analysis Analysis Name

[761 DSC Melt Temperature](#)  
[762 DSC Enthalpy of Crystallization](#)  
[763 DSC Enthalpy of Fusion](#)  
[764 DSC Glass Transition Temperature](#)  
[765 DSC Crystallization Peak Temperature - Research](#)  
[766 DSC Melting Peak Temperature - Research](#)  
[767 DSC Heat of Crystallization - Research](#)  
[768 DSC Heat of Fusion - Research](#)  
[769 DSC Glass Transition Temperature - Research](#)  
[770 Tensile Stress at Yield, Film Samples](#)  
[771 Tensile Stress at Break, Film Samples](#)  
[772 Percent Elongation at Yield, Film Samples](#)  
[773 Percent Elongation at Break, Film Samples](#)  
[774 Thickness of Film Tensile Samples](#)  
[775 Secant Modulus at 1% Strain](#)  
[776 Secant Modulus at 2% Strain](#)  
[780 Coefficient of Friction: Static](#)  
[781 Coefficient of Friction: Kinetic](#)  
[782 Tear Resistance of Films](#)  
[785 Optical Properties of Films - Percent Haze](#)  
[786 Optical Properties of Films: % Transmittance](#)  
[790 Notched Izod Impact](#)  
[791 Notched Izod Impact \(ISO\)](#)  
[792 Notched Charpy Impact, ISO Plastic Samples](#)

---

## About CTS and the Plastics Interlaboratory Program

Founded in 1971, Collaborative Testing Services, Inc. (CTS) is a privately-owned company that specializes in interlaboratory tests for a wide variety of industries, including rubber, plastics, fasteners and metals, containerboard, paper, color, agriculture, hemp, and wine, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 100 countries currently participate in CTS programs.

Collaborative Testing Services initiated the Collaborative Reference Program for PLASTICS in 1992 at the request of industry, ASTM committee D-20 members, and accrediting bodies. Additional test methods are always under review and are incorporated into the program when possible.

The program allows laboratories to compare periodically the level and uniformity of their testing with that of other participating laboratories. It also provides a realistic assessment of the state of plastics testing proficiency.

For each test there is a summary of the statistics for the analysis and a graphical representation of the data. Also shown are notes concerning specific laboratory results, as well as significant findings related to instrument types or other testing variations. Refer to the KEY FOR SUMMARY REPORT for an explanation of terms and guidelines for interpreting the results.

For further information contact:

COLLABORATIVE TESTING SERVICES, INC.  
21331 Gentry Drive  
Sterling, VA 20166  
Phone: (571) 434-1925  
FAX: (571) 434-1937  
e-mail: [plastics@cts-interlab.com](mailto:plastics@cts-interlab.com)

Office Hours: 8:00 a.m. - 4:30 p.m. ET

## Key for Web Summary Report (Page 1 of 2)

<b>WebCode</b>	Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Plastics Web Summary Report published on the CTS web site. The WebCode for each analysis can be found in the Performance Analysis Report mailed to each participant.
<b>Lab Mean</b>	The average of the test results obtained by the participant.
<b>Grand Mean</b>	The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN.
<b>Difference from Grand Mean</b>	The difference of the LAB MEAN from the GRAND MEAN.
<b>Between-Lab Standard Deviation</b>	An indication of the precision of measurement between the laboratories. The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa).
<b>Comparative Performance Value</b>	An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa). The critical value for each CPV will vary depending on the number of labs participating in a test.
<b>Inst Code</b>	A code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section) if instruments are tracked.
<b>Data Flag</b>	DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol:

<u>DATA FLAG</u>	<u>STATISTICALLY INCLUDED/EXCLUDED</u>	<u>ACTION REQUIRED</u>
*	INCLUDED	<b>CAUTION</b> - review testing procedure and monitor future results. Results fall outside 95% ellipse but within a 99% ellipse that is calculated but not drawn.
X	EXCLUDED	<b>STOP</b> - immediate review of data and/or testing procedure is required. Results fall outside the 99% ellipse. See specific notes following each table for more information on why the data is excluded.
M	EXCLUDED	<b>PROCEED</b> - lab was unable to report data for at least one sample.

**Graph** - For each laboratory, the LAB MEAN for the first sample (x-axis) is plotted against the LAB MEAN for the second sample (y-axis) with each point representing a laboratory. The horizontal and vertical cross-hairs are the GRAND MEANS for each sample. When 20 or more laboratories are in the statistics, an ellipse is also drawn so that 95% of the time a randomly selected laboratory will be included inside the ellipse. Plotted data flags are explained above.

---

### Common Problems Highlighted in Footnotes

1. **Extreme data** - The laboratory's results for one or both samples are so inconsistent with those of the other participants that the lab mean(s) fall outside the plot. The participant is advised to immediately review his data and/or testing procedure.
2. **Systematic bias** - The laboratory's results are either consistently high or low for both samples when compared to the other participants (the plotted point falls near the top or bottom of the ellipse). This indicates that the participant is performing the test with a constant bias. Causes of systematic errors include improper calibration, the particular make/model of equipment or a modification to the testing procedure.
3. **Inconsistency in testing between samples/sample sets** - The laboratory's results indicate that there are differences in the way the two samples tested (the plotted point falls to the side of the ellipse). This type of error may be attributed to the analyst deviating from the procedure when testing one of the samples or a material interaction occurrence with the instrument or room conditions. The inconsistency is reflected in the CPVs for the two samples, such as a +1.5 CPV for sample A and a -2.2 CPV for sample B. CTS also will specify if the laboratory's data for one sample are high/low compared to the other participants. If this inconsistency is slight, the lab's plotted point will be an \* that falls on the edge of the ellipse.
4. **Inconsistency in testing within a sample** - The laboratory's within-lab standard deviation for a specified sample is high when compared to the other participants, often causing the lab's plotted point to fall outside of the ellipse.

---

Labs flagged with an \* are not typically included in the footnotes of a data table. These labs may locate their position in the control ellipse and use the definitions above to help identify the type of testing error. An \* should serve as a caution flag, a "yellow light", to a lab. If this error is repeated in future rounds, a lab may need to stop and review its testing procedures. The initial data flag is not cause for alarm. Interlaboratory tests conducted at regular intervals permit a lab to recognize trends in testing.



## Plastics Interlaboratory Testing Program

### Results Summary for Report #124, 4th Qtr 2022

#### Analysis 704 - Tensile Stress at Yield

Material: ABS/PC	Sample F87	7,573.35	psi	1.73% COV
	Sample F88	7,571.38	psi	1.90% COV

#### Analysis 705 - Tensile Stress at Break

Material: ABS/PC	Sample F87	7,056.07	psi	4.84% COV
	Sample F88	7,256.77	psi	6.54% COV

#### Analysis 706 - Percent Elongation at Yield

Material: ABS/PC	Sample F87	4.4929	Percent	3.38% COV
	Sample F88	4.4774	Percent	3.58% COV

#### Analysis 708 - Modulus of Elasticity

Material: ABS/PC	Sample F87	328.97	ksi	4.37% COV
	Sample F88	329.55	ksi	3.89% COV

#### Analysis 710 - Deflection Temp. Under Flexural Load (1.82 MPa)

Material: HIPS	Sample E87	75.298	Degrees C	1.15% COV
	Sample E88	75.330	Degrees C	1.12% COV

#### Analysis 711 - Deflection Temp. Under Flexural Load (0.455 MPa)

Material: PP	Sample G87	94.965	Degrees C	3.77% COV
	Sample G88	93.982	Degrees C	4.40% COV

#### Analysis 712 - Temperature of Deflection (1.80 MPa)

Material: ABS	Sample N87	84.050	Degrees C	0.981% COV
	Sample N88	83.005	Degrees C	1.04% COV

#### Analysis 715 - Vicat Temperature (Rate A)

Material: ABS/PC	Sample H87	137.98	Degrees C	2.73% COV
	Sample H88	137.88	Degrees C	2.67% COV

#### Analysis 716 - Vicat Temperature (Rate B)

Material: ABS/PC	Sample R87	139.32	Degrees C	2.78% COV
	Sample R88	139.30	Degrees C	2.88% COV

#### Analysis 718 - Specific Gravity

Material: ABS	Sample T87	1.0416	sp gr 23/23 C	0.191% COV
	Sample T88	1.0417	sp gr 23/23 C	0.175% COV

#### Analysis 720 - Flexural Modulus

Material: ABS/PC	Sample J87	341.44	ksi	4.21% COV
	Sample J88	341.96	ksi	4.21% COV

#### Analysis 721 - Flexural Stress at 5% Strain

Material: ABS/PC	Sample J87	11,708.48	psi	3.35% COV
	Sample J88	11,702.32	psi	3.37% COV

#### Analysis 722 - Flexural Stress at Yield

Material: ABS/PC	Sample J87	11,914.61	psi	4.06% COV
	Sample J88	11,924.86	psi	3.82% COV

#### Analysis 730 - Tensile Stress at Yield, ISO Method

Material: ABS	Sample C87	45.304	MPa	2.01% COV
	Sample C88	45.303	MPa	1.93% COV

#### Analysis 731 - Tensile Stress at Break, ISO Method

Material: ABS	Sample C87	33.838	MPa	3.29% COV
	Sample C88	33.722	MPa	3.74% COV



# Plastics Interlaboratory Testing Program

## Results Summary for Report #124, 4th Qtr 2022

### Analysis 732 - Strain at Yield, ISO Method

Material: ABS	Sample C87	2.5224	Percent	5.69% COV
	Sample C88	2.5177	Percent	5.24% COV

### Analysis 734 - Modulus of Elasticity, ISO Method

Material: ABS	Sample C87	2,340.45	MPa	3.01% COV
	Sample C88	2,343.71	MPa	2.95% COV

### Analysis 736 - Flexural Modulus

Material: ABS	Sample K87	2,354.35	MPa	4.02% COV
	Sample K88	2,339.12	MPa	3.84% COV

### Analysis 737 - Flexural Stress at 3.5% Strain

Material: ABS	Sample K87	67.704	MPa	2.50% COV
	Sample K88	67.462	MPa	2.39% COV

### Analysis 738 - Flexural Stress at Yield

Material: ABS	Sample K87	68.883	MPa	2.36% COV
	Sample K88	68.792	MPa	2.24% COV

### Analysis 750 - Flow Rate (190C or 230C/2.16 kg)

Material: PP	Sample X87	12.007	grams/10 mins	5.55% COV
	Sample X88	12.102	grams/10 mins	6.42% COV

### Analysis 755 - Moisture Content

Material: ABS	Sample Y87	0.15196	Percent	12.7% COV
	Sample Y88	0.15683	Percent	12.3% COV

### Analysis 757 - Ash Content

Material: PBT	Sample L87	29.663	Percent	0.390% COV
	Sample L88	29.677	Percent	0.301% COV

### Analysis 758 - TGA

Material: PP	Sample A87	79.276	Percent	0.715% COV
	Sample A88	79.427	Percent	0.749% COV

### Analysis 760 - DSC Crystallization Temperature

Material: PBT	Sample W87	173.89	Degrees Celsius	3.00% COV
	Sample W88	173.82	Degrees Celsius	2.88% COV

### Analysis 761 - DSC Melt Temperature

Material: PBT	Sample W87	223.31	Degrees Celsius	0.467% COV
	Sample W88	223.17	Degrees Celsius	0.446% COV

### Analysis 762 - DSC Enthalpy of Crystallization

Material: PBT	Sample W87	48.760	Joules Per Gram	9.40% COV
	Sample W88	48.830	Joules Per Gram	9.77% COV

### Analysis 763 - DSC Enthalpy of Fusion

Material: PBT	Sample W87	42.762	Joules Per Gram	13.9% COV
	Sample W88	42.609	Joules Per Gram	14.1% COV

### Analysis 764 - DSC Glass Transition Temperature

Material: PET	Sample V87	82.280	Degrees Celsius	1.59% COV
	Sample V88	82.191	Degrees Celsius	1.50% COV

### Analysis 765 - Research Crystallization Peak Temperature

Material: PBT	Sample W87	176.58	Degrees Celsius	2.99% COV
	Sample W88	176.32	Degrees Celsius	2.91% COV



# Plastics Interlaboratory Testing Program

## Results Summary for Report #124, 4th Qtr 2022

### Analysis 766 - Research Melting Peak Temperature

Material: PBT	Sample W87	223.07	Degrees Celsius	0.549% COV
	Sample W88	222.86	Degrees Celsius	0.422% COV

### Analysis 767 - Research Heat of Crystallization

Material: PBT	Sample W87	50.849	Joules Per Gram	11.2% COV
	Sample W88	50.681	Joules Per Gram	9.94% COV

### Analysis 768 - Research Heat of Fusion

Material: PBT	Sample W87	46.785	Joules Per Gram	18.0% COV
	Sample W88	47.020	Joules Per Gram	19.2% COV

### Analysis 769 - Research Glass Transition Temperature

Material: PET	Sample V87	81.046	Degrees Celsius	4.23% COV
	Sample V88	81.182	Degrees Celsius	4.47% COV

### Analysis 770 - Tensile Stress at Yield, Films

Material: LDPE	Sample B87	1,718.68	psi	14.7% COV
	Sample B88	1,725.63	psi	16.0% COV

### Analysis 771 - Tensile Stress at Break, Films

Material: LDPE	Sample B87	3,426.13	psi	13.9% COV
	Sample B88	3,317.28	psi	15.7% COV

### Analysis 772 - Elongation at Yield, Films

Material: LDPE	Sample B87	42.432	Percent	49.2% COV
	Sample B88	61.241	Percent	40.9% COV

### Analysis 773 - Elongation at Break, Films

Material: LDPE	Sample B87	864.65	Percent	15.2% COV
	Sample B88	775.65	Percent	16.9% COV

### Analysis 774 - Thickness of Film Specimens

Material: LDPE	Sample B87	2.9220	mils	5.58% COV
	Sample B88	2.8721	mils	4.32% COV

### Analysis 775 - Secant Modulus at 1% Strain

Material: LDPE	Sample B87	32,881.94	psi	14.9% COV
	Sample B88	30,072.12	psi	14.5% COV

### Analysis 776 - Secant Modulus at 2% Strain

Material: LDPE	Sample B87	28,238.41	psi	9.27% COV
	Sample B88	26,001.72	psi	8.03% COV

### Analysis 780 - Static Friction

Material: LDPE	Sample P87	0.15972	COF	19.6% COV
	Sample P88	0.19345	COF	18.2% COV

### Analysis 781 - Kinetic Friction

Material: LDPE	Sample P87	0.10668	COF	31.6% COV
	Sample P88	0.14597	COF	18.7% COV

### Analysis 782 - Tear Resistance of Film

Material: LDPE	Sample Q87	331.35	grams-force	20.5% COV
	Sample Q88	324.12	grams-force	19.3% COV

### Analysis 785 - Percent Haze

Material: LDPE	Sample D87	25.241	Percent	4.60% COV
	Sample D88	18.708	Percent	4.19% COV



## Plastics Interlaboratory Testing Program

Results Summary for Report #124, 4th Qtr 2022

---

### Analysis 786 - Total Transmittance

Material: LDPE	Sample D87	92.727	Percent	1.14% COV
	Sample D88	92.710	Percent	1.13% COV

### Analysis 790 - Notched Izod Impact

Material: ABS/PC	Sample S87	10.580	ft.lbf/in	6.30% COV
	Sample S88	10.621	ft.lbf/in	6.46% COV

### Analysis 791 - Notched Izod Impact

Material: ABS/PC	Sample Z87	46.008	kJ/m <sup>2</sup>	4.22% COV
	Sample Z88	45.782	kJ/m <sup>2</sup>	4.87% COV

### Analysis 792 - Notched Charpy Impact

Material: ABS/PC	Sample M87	49.662	kJ/m <sup>2</sup>	10.8% COV
	Sample M88	49.923	kJ/m <sup>2</sup>	11.5% COV





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 704

4th Qtr 2022

### Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F87			Sample F88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2A9QYW		7,689.4	116.1	0.88	7,764.2	192.8	1.34
3JRGYU		7,378.6	-194.7	-1.48	7,411.8	-159.6	-1.11
3RQ26V		7,649.2	75.9	0.58	7,644.8	73.5	0.51
3ZZNXW		7,413.2	-160.1	-1.22	7,370.6	-200.8	-1.39
4PC2EE		7,308.8	-264.5	-2.01	7,344.6	-226.8	-1.57
4Y7ZE2		7,692.9	119.5	0.91	7,704.5	133.1	0.92
6232KN		7,434.0	-139.3	-1.06	7,498.0	-73.4	-0.51
6NGVFZ		7,378.2	-195.1	-1.49	7,281.0	-290.4	-2.01
6ZVU9M		7,654.4	81.1	0.62	7,717.4	146.0	1.01
74W47V		7,622.0	48.7	0.37	7,586.0	14.6	0.10
7DFMHF		7,552.4	-20.9	-0.16	7,538.0	-33.4	-0.23
7K2K9N		7,755.2	181.9	1.38	7,774.8	203.4	1.41
7MDQ6V		7,563.4	-9.9	-0.08	7,538.0	-33.4	-0.23
8LMQXC		7,662.0	88.7	0.68	7,662.4	91.0	0.63
99HRRR		7,665.6	92.3	0.70	7,675.4	104.0	0.72
A6NNA4		7,584.0	10.6	0.08	7,488.9	-82.5	-0.57
CP8CUF		7,732.0	158.7	1.21	7,714.0	142.6	0.99
CPAYA9		7,560.0	-13.3	-0.10	7,557.5	-13.9	-0.10
ED8HC3		7,646.2	72.9	0.55	7,671.0	99.6	0.69
F36D78		7,658.1	84.7	0.65	7,658.1	86.7	0.60
F67MPN		7,610.0	36.7	0.28	7,646.0	74.6	0.52
F6PBA6		7,564.0	-9.3	-0.07	7,479.2	-92.2	-0.64
FA6YRF		7,304.0	-269.3	-2.05	7,310.0	-261.4	-1.81
FLDNLB		7,520.0	-53.4	-0.41	7,559.1	-12.2	-0.08
FY6979		7,496.0	-77.3	-0.59	7,461.2	-110.2	-0.76
GNE6FK		7,383.4	-189.9	-1.45	7,354.2	-217.2	-1.51
HLRTC9		7,718.0	144.7	1.10	7,782.0	210.6	1.46
JLPBXA	*	7,897.2	323.9	2.47	7,825.2	253.8	1.76
JMFLQN		7,481.1	-92.2	-0.70	7,524.6	-46.8	-0.32
JQHJZV		7,724.8	151.4	1.15	7,730.6	159.2	1.10
K8LD7V		7,788.0	214.7	1.63	7,785.4	214.0	1.48
KB27WN		7,543.6	-29.7	-0.23	7,496.0	-75.4	-0.52
KVMRPY		7,546.6	-26.7	-0.20	7,518.6	-52.8	-0.37
KZYNLL		7,501.6	-71.7	-0.55	7,478.4	-93.0	-0.64
L6QAUZ		7,709.6	136.3	1.04	7,739.8	168.4	1.17



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 704

4th Qtr 2022

### Tensile Stress at Yield - psi

WebCode	Data Flag	Sample F87			Sample F88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
L8B7CX		7,711.5	138.2	1.05	7,728.8	157.4	1.09
LEYQHY		7,667.6	94.3	0.72	7,675.2	103.8	0.72
LMVMLP		7,437.2	-136.1	-1.04	7,423.6	-147.8	-1.02
LXQXTB		7,622.0	48.7	0.37	7,592.0	20.6	0.14
M8WUGE		7,582.4	9.0	0.07	7,610.6	39.2	0.27
MDY4KL		7,627.3	54.0	0.41	7,621.2	49.8	0.35
NEN27X		7,513.0	-60.3	-0.46	7,403.4	-168.0	-1.16
PXJUQV		7,614.4	41.1	0.31	7,606.6	35.2	0.24
RLF9L9		7,529.0	-44.4	-0.34	7,511.3	-60.1	-0.42
T8EWNN	*	7,394.2	-179.1	-1.36	7,514.6	-56.8	-0.39
TLDY93		7,522.6	-50.7	-0.39	7,534.8	-36.6	-0.25
TUZXKF	*	7,230.2	-343.2	-2.61	7,209.9	-361.5	-2.51
ULLVE6		7,511.4	-61.9	-0.47	7,492.6	-78.8	-0.55
UP6JGQ		7,601.6	28.2	0.21	7,566.0	-5.4	-0.04
V848BM		7,449.8	-123.5	-0.94	7,492.4	-79.0	-0.55
VNDT24	X	7,614.0	40.7	0.31	7,872.0	300.6	2.08
WX9LHU		7,688.0	114.7	0.87	7,714.0	142.6	0.99
X8WUP3		7,525.6	-47.7	-0.36	7,435.6	-135.8	-0.94
X9B4UW		7,497.9	-75.4	-0.57	7,493.9	-77.5	-0.54
XE2BHW		7,556.5	-16.8	-0.13	7,530.4	-41.0	-0.28
Y88WVA		7,665.8	92.4	0.70	7,661.9	90.5	0.63
YBUHXW		7,575.0	1.7	0.01	7,549.6	-21.8	-0.15
YBYVPZ	X	7,116.0	-457.3	-3.48	7,182.0	-389.4	-2.70
YKJ7W7		7,501.4	-71.9	-0.55	7,503.8	-67.6	-0.47
YTRV24	*	7,827.0	253.7	1.93	7,941.4	370.0	2.57
ZC4YFT	X	7,704.5	131.1	1.00	7,971.3	400.0	2.77
ZXLERT		7,588.7	15.4	0.12	7,606.4	35.0	0.24

#### Summary Statistics

##### Grand Means

##### Sample F87

7,573.35 psi

##### Sample F88

7,571.38 psi

##### Std Dev Btwn Labs

131.32 psi

144.21 psi

Statistics based on 59 of 62 reporting participants

Sample F87: ABS/PC & Sample F88: ABS/PC



## Plastics Interlaboratory Testing Program

### Analysis 704

#### Tensile Stress at Yield - psi

---

Report #124

4th Qtr 2022

#### **Comments on Assigned Data Flags for Test #704**

ZC4YFT (X) - Data for sample F88 are high. Inconsistent within the determinations of sample F88.

YBYVPZ (X) - Data for sample F87 are low.

VNDT24 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample F88.



# Plastics Interlaboratory Testing Program

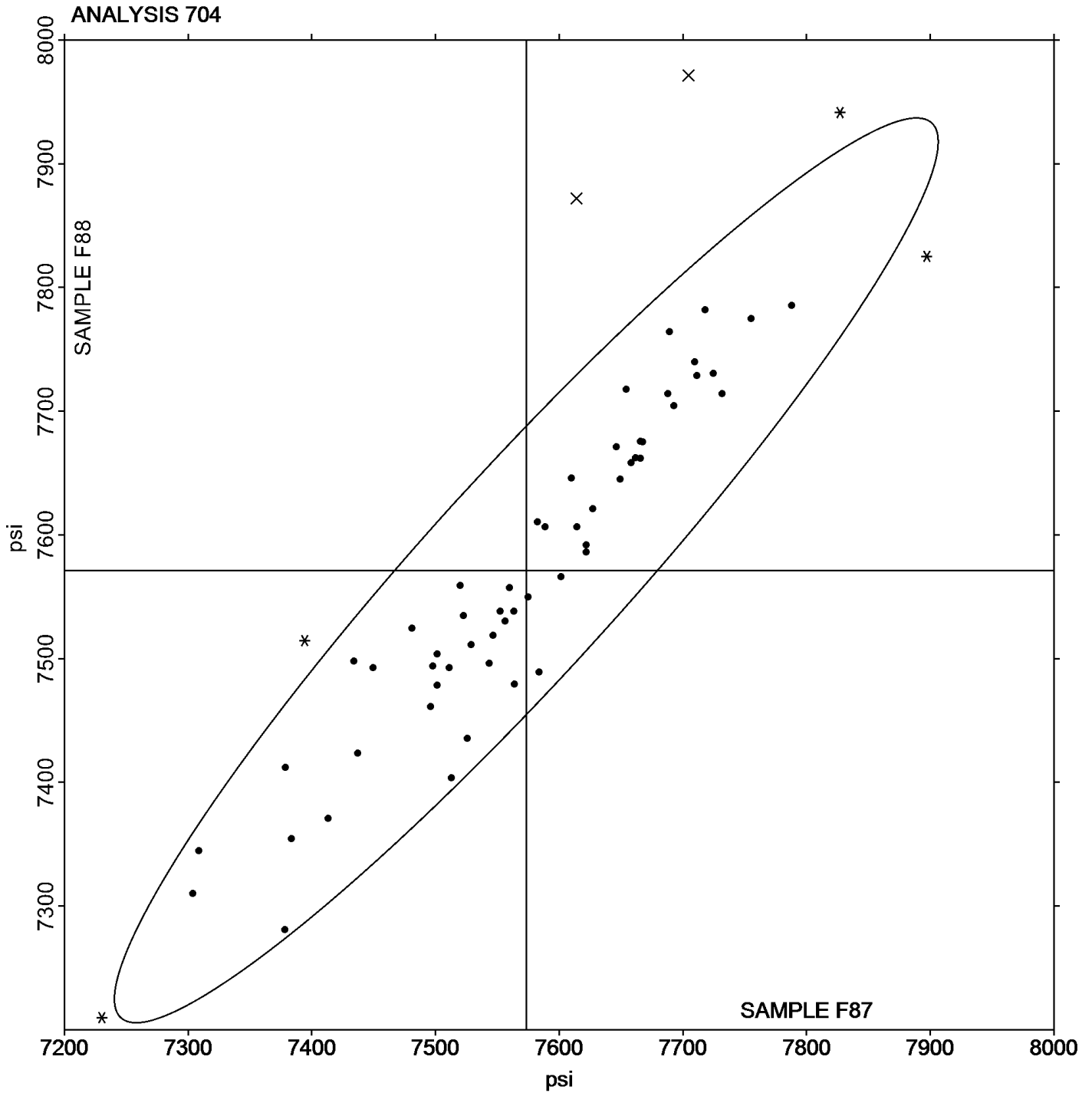
Report #124

## Analysis 704

4th Qtr 2022

### Tensile Stress at Yield - psi

Grand Mean Sample F87: 7,573.35 psi    Grand Mean Sample F88: 7,571.38 psi





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 705

4th Qtr 2022

### Tensile Stress at Break - psi

WebCode	Data Flag	Sample F87			Sample F88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2A9QYW		6,961.0	-95.1	-0.28	7,110.7	-146.1	-0.31
2LNGJZ		7,025.4	-30.7	-0.09	7,106.6	-150.2	-0.32
3JRGYU	X	6,286.3	-769.8	-2.25	7,729.5	472.7	1.00
3RQ26V		7,065.6	9.5	0.03	7,451.8	195.1	0.41
3ZZNXW		6,998.8	-57.3	-0.17	7,357.0	100.2	0.21
4PC2EE		6,932.2	-123.9	-0.36	6,913.6	-343.2	-0.72
6232KN		6,820.0	-236.1	-0.69	7,088.0	-168.8	-0.36
6NGVFZ		6,998.6	-57.5	-0.17	7,636.4	379.6	0.80
7DFMHF		6,994.8	-61.3	-0.18	7,187.2	-69.6	-0.15
7K2K9N		7,308.8	252.7	0.74	6,833.8	-423.0	-0.89
7MDQ6V		7,318.8	262.7	0.77	7,821.6	564.8	1.19
8LMQXC		6,701.4	-354.7	-1.04	6,721.0	-535.8	-1.13
99HRRR		7,005.6	-50.5	-0.15	6,714.4	-542.4	-1.14
A6NNA4		6,945.6	-110.5	-0.32	7,573.3	316.5	0.67
CPAYA9		7,143.3	87.2	0.26	7,395.7	138.9	0.29
F36D78		7,164.9	108.9	0.32	7,368.0	111.2	0.23
F6PBA6		6,765.6	-290.5	-0.85	6,823.6	-433.2	-0.91
FA6YRF		6,742.0	-314.1	-0.92	7,246.0	-10.8	-0.02
FLDNLB		7,115.9	59.8	0.18	7,370.3	113.5	0.24
FY6979		6,688.0	-368.1	-1.08	6,343.6	-913.2	-1.93
GNE6FK		6,325.2	-730.9	-2.14	6,452.0	-804.8	-1.70
HLRTC9		7,424.0	367.9	1.08	7,492.0	235.2	0.50
JLPBXA		6,811.6	-244.5	-0.72	6,592.2	-664.6	-1.40
JMFLQN		7,150.4	94.4	0.28	7,144.6	-112.2	-0.24
JQHJZV		7,466.6	410.5	1.20	7,980.0	723.3	1.52
K8LD7V		7,555.1	499.0	1.46	7,857.6	600.9	1.27
KB27WN		6,610.8	-445.3	-1.30	7,009.4	-247.4	-0.52
KL2L28		7,690.6	634.5	1.86	7,690.4	433.6	0.91
KVMRPY		6,886.2	-169.9	-0.50	6,743.6	-513.2	-1.08
KZYNLL		7,476.8	420.7	1.23	8,218.0	961.2	2.03
L6QAUZ	*	7,849.4	793.3	2.32	8,601.4	1,344.6	2.83
L8B7CX		7,269.6	213.5	0.62	7,461.4	204.6	0.43
LEYQHY		6,613.2	-442.9	-1.30	6,567.9	-688.8	-1.45
LMVMLP		6,484.8	-571.3	-1.67	6,466.6	-790.2	-1.67
LXQXTB		6,876.0	-180.1	-0.53	6,988.8	-268.0	-0.56



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 705

4th Qtr 2022

### Tensile Stress at Break - psi

WebCode	Data Flag	Sample F87			Sample F88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
M8WUGE		6,889.1	-167.0	-0.49	7,519.7	262.9	0.55
MDY4KL		7,242.1	186.0	0.54	7,387.1	130.4	0.27
NEN27X		6,713.2	-342.9	-1.00	7,427.6	170.8	0.36
PXJUQV		6,625.0	-431.1	-1.26	6,539.2	-717.6	-1.51
R6RVA2		7,434.0	377.9	1.11	7,668.0	411.2	0.87
RLF9L9		7,206.1	150.0	0.44	7,141.7	-115.1	-0.24
T8EWNN		7,001.0	-55.1	-0.16	7,532.4	275.6	0.58
TLDY93		7,076.0	19.9	0.06	7,248.0	-8.8	-0.02
ULLVE6		7,012.8	-43.3	-0.13	6,926.4	-330.4	-0.70
UP6JGQ		7,490.8	434.7	1.27	7,170.7	-86.0	-0.18
V848BM		6,408.6	-647.5	-1.89	6,692.0	-564.8	-1.19
VNDT24		7,340.0	283.9	0.83	7,866.0	609.2	1.28
WX9LHU		7,000.0	-56.1	-0.16	7,322.0	65.2	0.14
X9B4UW		7,005.4	-50.7	-0.15	7,246.1	-10.6	-0.02
XE2BHW		7,640.7	584.6	1.71	8,151.2	894.4	1.89
Y88WVA		7,318.5	262.4	0.77	7,459.4	202.6	0.43
YBUHXW		6,416.6	-639.5	-1.87	6,704.8	-552.0	-1.16
YBYVPZ		7,526.0	469.9	1.37	7,682.0	425.2	0.90
YKJ7W7		7,385.7	329.6	0.96	7,221.4	-35.4	-0.07
YTRV24		7,350.4	294.3	0.86	7,175.0	-81.8	-0.17
ZC4YFT		6,813.9	-242.2	-0.71	7,714.5	457.7	0.96
ZXLERT		7,057.6	1.5	0.00	7,255.4	-1.3	0.00

#### Summary Statistics

	Sample F87	Sample F88
<b>Grand Means</b>	7,056.07 psi	7,256.77 psi
<b>Std Dev Btwn Labs</b>	341.77 psi	474.34 psi

Statistics based on 56 of 57 reporting participants

Sample F87: ABS/PC & Sample F88: ABS/PC

#### Comments on Assigned Data Flags for Test #705

3JRGYU (X) - Inconsistent in testing between samples.



# Plastics Interlaboratory Testing Program

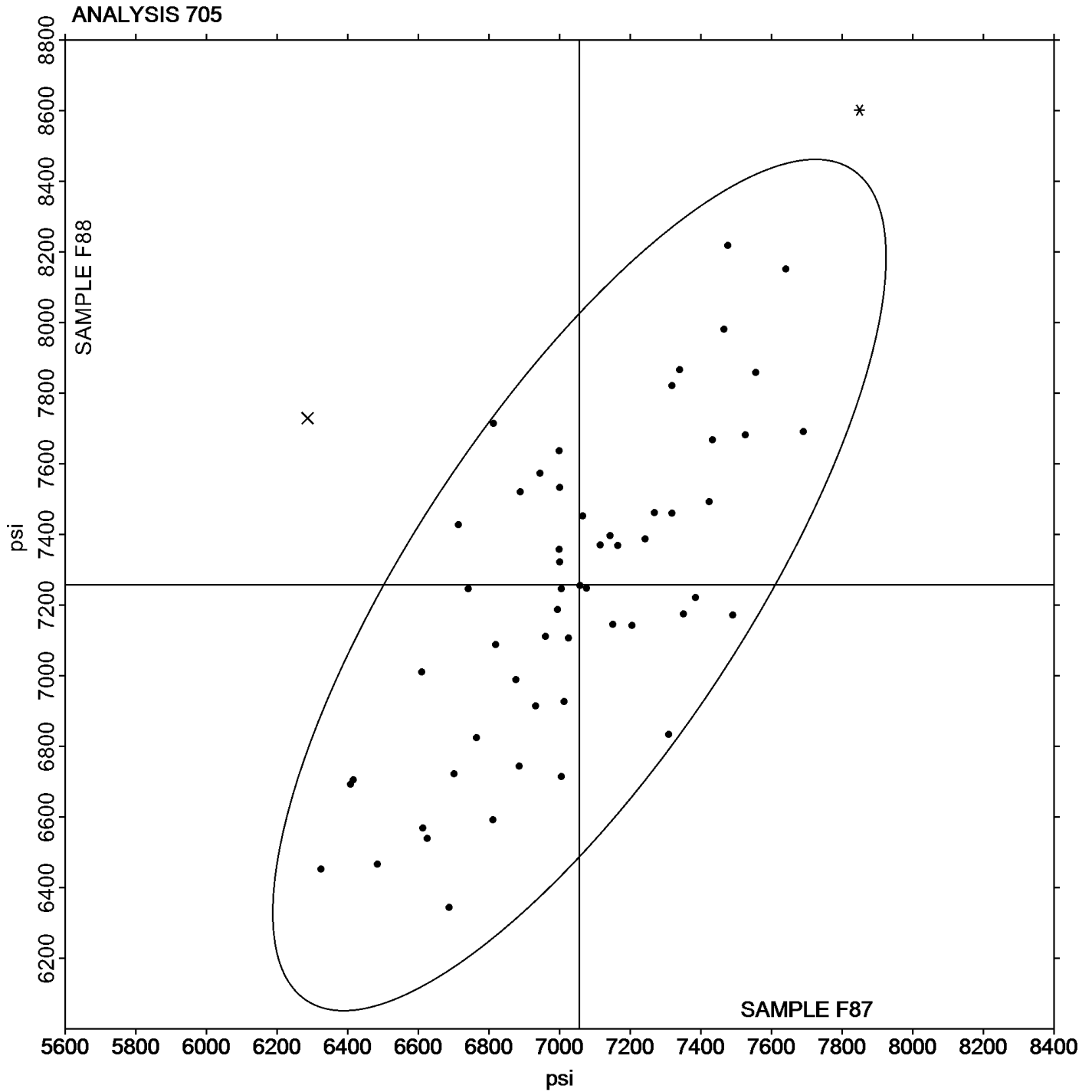
## Analysis 705

### Tensile Stress at Break - psi

Report #124

4th Qtr 2022

Grand Mean Sample F87: 7,056.07 psi    Grand Mean Sample F88: 7,256.77 psi





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 706

4th Qtr 2022

### Percent Elongation at Yield - Percent

WebCode	Data Flag	Sample F87			Sample F88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2A9QYW		4.693	0.200	1.32	4.696	0.219	1.37
3JRGYU		4.566	0.073	0.48	4.622	0.145	0.90
3RQ26V		4.556	0.063	0.42	4.386	-0.091	-0.57
3ZZNXW		4.556	0.063	0.42	4.488	0.011	0.07
4PC2EE		4.262	-0.231	-1.52	4.386	-0.091	-0.57
4Y7ZE2		4.772	0.279	1.84	4.582	0.105	0.65
6232KN	X	76.080	71.587	471.97	85.640	81.163	506.18
6NGVFZ		4.374	-0.119	-0.78	4.194	-0.283	-1.77
6ZVU9M		4.180	-0.313	-2.06	4.176	-0.301	-1.88
7DFMHF		4.744	0.251	1.66	4.694	0.217	1.35
7K2K9N		4.454	-0.039	-0.26	4.440	-0.037	-0.23
7MDQ6V		4.568	0.075	0.49	4.384	-0.094	-0.58
99HRRR		4.442	-0.051	-0.34	4.396	-0.081	-0.51
A6NNA4	M	No data reported for this sample			4.264	-0.213	-1.33
F36D78		4.296	-0.197	-1.30	4.344	-0.133	-0.83
F6PBA6	X	11.360	6.867	45.27	11.180	6.703	41.80
FA6YRF	X	4.220	-0.273	-1.80	4.635	0.158	0.98
FLDNLB		4.748	0.255	1.68	4.730	0.253	1.58
FY6979	X	5.052	0.560	3.69	4.990	0.513	3.20
GNE6FK		4.378	-0.115	-0.76	4.476	-0.001	-0.01
HLRTC9		4.670	0.177	1.17	4.664	0.187	1.16
JLPBXA		4.358	-0.135	-0.89	4.506	0.029	0.18
JMFLQN		4.480	-0.013	-0.09	4.500	0.023	0.14
JQHJZV		4.400	-0.093	-0.61	4.380	-0.097	-0.61
K8LD7V		4.542	0.049	0.32	4.518	0.041	0.25
KB27WN		4.502	0.009	0.06	4.582	0.105	0.65
KVMRPY		4.508	0.015	0.10	4.450	-0.027	-0.17
KZYNLL		4.506	0.013	0.09	4.518	0.041	0.25
L6QAUZ		4.608	0.115	0.76	4.654	0.177	1.10
L8B7CX		4.711	0.218	1.44	4.659	0.181	1.13
LEYQHY		4.566	0.073	0.48	4.612	0.135	0.84
LMVMPL	X	15.040	10.547	69.54	14.882	10.405	64.89
LXQXTB		4.636	0.143	0.94	4.576	0.099	0.62
M8WUGE		4.470	-0.023	-0.15	4.544	0.067	0.42
MDY4KL		4.442	-0.051	-0.34	4.400	-0.077	-0.48





**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 706**

**4th Qtr 2022**

**Percent Elongation at Yield - Percent**

WebCode	Data Flag	Sample F87			Sample F88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NEN27X	X	3.750	-0.743	-4.90	3.732	-0.745	-4.65
PXJUQV		4.392	-0.101	-0.67	4.350	-0.127	-0.79
RLF9L9		4.474	-0.019	-0.12	4.416	-0.061	-0.38
T8EWNN		4.274	-0.219	-1.44	4.390	-0.087	-0.54
TLDY93		4.382	-0.111	-0.73	4.410	-0.067	-0.42
TUZXKF		4.524	0.031	0.21	4.464	-0.013	-0.08
ULLVE6		4.416	-0.077	-0.51	4.390	-0.087	-0.54
UP6JGQ		4.140	-0.353	-2.33	4.180	-0.297	-1.85
V848BM		4.230	-0.263	-1.73	4.122	-0.355	-2.22
VNDT24		4.560	0.067	0.44	4.600	0.123	0.76
WX9LHU		4.648	0.155	1.02	4.642	0.165	1.03
X8WUP3		4.436	-0.057	-0.38	4.288	-0.189	-1.18
X9B4UW		4.592	0.099	0.65	4.624	0.147	0.91
XE2BHW		4.732	0.239	1.58	4.794	0.317	1.97
Y88WVA		4.584	0.091	0.60	4.662	0.185	1.15
YBUHXW		4.430	-0.063	-0.41	4.408	-0.069	-0.43
YBYVPZ	*	4.400	-0.093	-0.61	4.160	-0.317	-1.98
YKJ7W7		4.578	0.085	0.56	4.587	0.110	0.68
ZC4YFT		4.298	-0.195	-1.28	4.329	-0.149	-0.93
ZXLERT		4.582	0.089	0.59	4.542	0.065	0.40

Summary Statistics		
	Sample F87	Sample F88
<b>Grand Means</b>	4.4929 Percent	4.4774 Percent
<b>Std Dev Btwn Labs</b>	0.1517 Percent	0.1603 Percent
Statistics based on 48 of 55 reporting participants		

Sample F87: ABS/PC & Sample F88: ABS/PC



## Plastics Interlaboratory Testing Program

### Analysis 706

#### Percent Elongation at Yield - Percent

---

Report #124

4th Qtr 2022

#### **Comments on Assigned Data Flags for Test #706**

A6NNA4 (M) - Participant did not submit data for sample F87.

FY6979 (X) - Data for both samples are high. Possible Systematic Error.

FA6YRF (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample F87.

LMVMLP (X) - Extreme data.

NEN27X (X) - Data for both samples are low. Possible Systematic Error.

F6PBA6 (X) - Extreme data.

6232KN (X) - Extreme data.





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 708

4th Qtr 2022

### Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F87			Sample F88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2A9QYW		328.72	-0.24	-0.02	329.06	-0.49	-0.04
3JRGYU		318.29	-10.68	-0.74	320.29	-9.27	-0.72
3RQ26V		339.27	10.30	0.72	338.25	8.70	0.68
3ZZNXW		347.36	18.40	1.28	337.14	7.59	0.59
4PC2EE		339.50	10.53	0.73	335.80	6.25	0.49
6232KN	X	234.00	-94.97	-6.61	262.00	-67.55	-5.27
6NGVFZ		331.40	2.43	0.17	330.38	0.83	0.06
7DFMHF		308.52	-20.45	-1.42	311.26	-18.29	-1.43
7K2K9N		340.25	11.28	0.79	341.31	11.76	0.92
7MDQ6V		325.40	-3.57	-0.25	328.10	-1.45	-0.11
99HRRR		338.72	9.75	0.68	339.86	10.31	0.80
A6NNA4	M	No data reported for this sample			285.99	-43.57	-3.40
F36D78		337.56	8.60	0.60	334.63	5.08	0.40
F6PBA6	X	55.20	-273.77	-19.05	54.00	-275.55	-21.50
FA6YRF		318.40	-10.57	-0.74	326.60	-2.95	-0.23
FLDNLB		355.06	26.09	1.82	351.50	21.95	1.71
FY6979	X	323.85	-5.12	-0.36	342.32	12.77	1.00
GNE6FK		320.44	-8.53	-0.59	316.40	-13.15	-1.03
HLRTC9		338.60	9.63	0.67	341.40	11.85	0.92
JLPBXA		344.40	15.43	1.07	335.78	6.23	0.49
JMFLQN		321.84	-7.13	-0.50	325.47	-4.09	-0.32
JQHJZV		334.75	5.78	0.40	333.59	4.04	0.32
K8LD7V		342.64	13.67	0.95	346.41	16.86	1.32
KB27WN		338.32	9.35	0.65	333.16	3.61	0.28
KL2L28		341.30	12.33	0.86	335.02	5.47	0.43
KVMRPY		293.80	-35.17	-2.45	299.80	-29.75	-2.32
KZYNLL	*	301.62	-27.35	-1.90	314.88	-14.67	-1.15
L8B7CX		317.80	-11.17	-0.78	321.88	-7.67	-0.60
LEYQHY		318.16	-10.81	-0.75	318.88	-10.67	-0.83
LMVMPL	X	97.87	-231.10	-16.08	97.97	-231.58	-18.07
LXQXTB		307.12	-21.85	-1.52	304.40	-25.15	-1.96
M8WUGE		338.42	9.45	0.66	338.56	9.01	0.70
MDY4KL		335.09	6.12	0.43	333.76	4.21	0.33
NEN27X	X	513.04	184.07	12.81	454.96	125.41	9.79
PXJUQV		334.90	5.93	0.41	333.50	3.95	0.31



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 708

4th Qtr 2022

### Modulus of Elasticity - ksi

WebCode	Data Flag	Sample F87			Sample F88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RLF9L9		335.42	6.46	0.45	333.91	4.36	0.34
T8EWNN		330.80	1.83	0.13	341.80	12.25	0.96
TLDY93		343.68	14.71	1.02	345.56	16.01	1.25
TUZXKF	X	0.33	-328.64	-22.87	0.33	-329.22	-25.69
ULLVE6		316.58	-12.39	-0.86	312.36	-17.19	-1.34
UP6JGQ		327.80	-1.17	-0.08	327.38	-2.17	-0.17
V848BM		342.76	13.79	0.96	347.28	17.73	1.38
VNDT24		338.20	9.23	0.64	336.80	7.25	0.57
WX9LHU		339.60	10.63	0.74	337.40	7.85	0.61
X8WUP3		342.14	13.17	0.92	345.74	16.19	1.26
X9B4UW		309.80	-19.16	-1.33	308.64	-20.91	-1.63
XE2BHW		303.71	-25.26	-1.76	302.84	-26.71	-2.08
Y88WVA		310.56	-18.41	-1.28	310.20	-19.36	-1.51
YBUHXW		333.46	4.49	0.31	334.22	4.67	0.36
YBYVPZ	*	301.40	-27.57	-1.92	317.00	-12.55	-0.98
YKJ7W7		322.62	-6.34	-0.44	325.24	-4.32	-0.34
YTRV24	M	349.50	20.53	1.43	No data reported for this sample		
ZC4YFT		336.20	7.23	0.50	335.01	5.46	0.43
ZXLERT		340.11	11.14	0.78	340.96	11.41	0.89

Summary Statistics		
	Sample F87	Sample F88
<b>Grand Means</b>	328.967 ksi	329.553 ksi
<b>Stnd Dev Btwn Labs</b>	14.371 ksi	12.814 ksi
Statistics based on 46 of 54 reporting participants		

Sample F87: ABS/PC & Sample F88: ABS/PC



## Plastics Interlaboratory Testing Program

### Analysis 708

#### Modulus of Elasticity - ksi

Report #124

4th Qtr 2022

---

#### **Comments on Assigned Data Flags for Test #708**

A6NNA4 (M) - Participant did not submit data for sample F87.

FY6979 (X) - Inconsistent in testing between samples.

LMVMLP (X) - Extreme data.

NEN27X (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample F88.

F6PBA6 (X) - Extreme data.

6232KN (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample F87.

YTRV24 (M) - Participant did not submit data for sample F88.

TUZKX (X) - Extreme data.



# Plastics Interlaboratory Testing Program

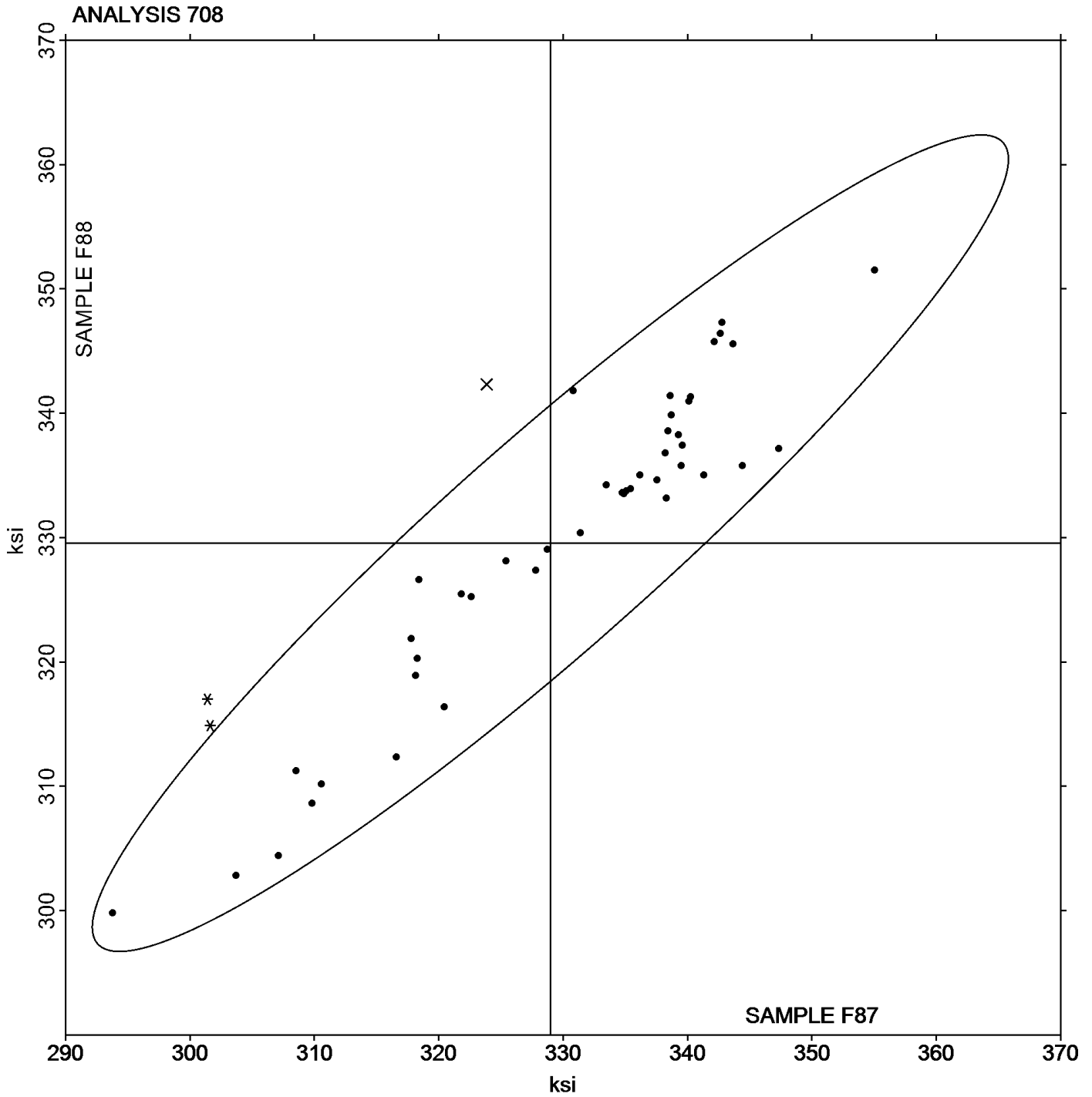
Report #124

Analysis 708

4th Qtr 2022

Modulus of Elasticity - ksi

Grand Mean Sample F87: 328.97 ksi    Grand Mean Sample F88: 329.55 ksi





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 710

4th Qtr 2022

### Deflection Temp. Under Flexural Load (1.82 MPa) - Degrees C

WebCode	Data Flag	Sample E87			Sample E88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		75.43	0.13	0.15	75.50	0.17	0.20	IN
3ZZNXW		73.88	-1.42	-1.65	74.20	-1.13	-1.34	CE
4PC2EE		73.98	-1.32	-1.53	73.95	-1.38	-1.64	TO
6232KN	X	73.35	-1.95	-2.25	75.00	-0.33	-0.39	DN
6NGVFZ		75.53	0.23	0.26	75.50	0.17	0.20	CE
8LMQXC		75.68	0.38	0.44	75.73	0.40	0.47	TO
AV3EPG	X	87.73	12.43	14.37	86.73	11.40	13.57	XX
D4NMZH	X	75.53	0.23	0.26	74.60	-0.73	-0.87	TO
ED8HC3		74.73	-0.57	-0.66	74.68	-0.65	-0.78	CE
EK9UAK		75.90	0.60	0.70	76.10	0.77	0.92	XA
F36D78		74.73	-0.57	-0.66	74.93	-0.40	-0.48	RO
F67MPN		75.03	-0.27	-0.32	75.03	-0.30	-0.36	CE
F6PBA6		76.55	1.25	1.45	76.68	1.35	1.60	XX
JLPBXA		74.65	-0.65	-0.75	74.95	-0.38	-0.45	TO
JMFLQN		75.75	0.45	0.52	75.70	0.37	0.44	CF
JQHJZV		76.43	1.13	1.30	76.50	1.17	1.39	AT
K8LD7V		76.10	0.80	0.93	75.63	0.30	0.35	ZW
KB27WN		75.85	0.55	0.64	75.93	0.60	0.71	IN
KZYNLL		74.80	-0.50	-0.58	74.95	-0.38	-0.45	CF
L6QAUZ		74.30	-1.00	-1.15	74.53	-0.80	-0.96	TO
LEYQHY	*	76.18	0.88	1.01	75.60	0.27	0.32	CE
MDY4KL		75.95	0.65	0.75	76.00	0.67	0.80	AT
NEN27X		76.53	1.23	1.42	76.60	1.27	1.51	CE
RLF9L9		75.45	0.15	0.18	75.45	0.12	0.14	TY
T3KXDZ		75.75	0.45	0.52	75.83	0.50	0.59	IN
UDWPEE		74.20	-1.10	-1.27	74.03	-1.30	-1.55	TO
VNDT24		76.25	0.95	1.10	76.40	1.07	1.27	CF
X8WUP3		74.05	-1.25	-1.44	73.95	-1.38	-1.64	TO
ZC4YFT		74.13	-1.17	-1.35	74.27	-1.06	-1.26	TO





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 710

4th Qtr 2022

### Deflection Temp. Under Flexural Load (1.82 MPa) - Degrees C

Summary Statistics		
	<u>Sample E87</u>	<u>Sample E88</u>
<b>Grand Means</b>	75.298 Degrees C	75.330 Degrees C
<b>Stnd Dev Btwn Labs</b>	0.865 Degrees C	0.840 Degrees C
Statistics based on 26 of 29 reporting participants		

Sample E87: HIPS & Sample E88: HIPS

#### **Comments on Assigned Data Flags for Test #710**

- D4NMZH (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample E87.
- AV3EPG (X) - Data for both samples are high. Possible Systematic Error.
- 6232KN (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample E88.

#### **Key to Instrument Codes Reported by Participants**

AT Atlas	CE Ceast
CF Coesfeld	DN DYNISCO
IN Instron	RO Rosand
TO Tinius Olsen	TY Toyoseiki
XA Special In-House Instrument	XX Instrument manufacturer not specified by lab
ZW Zwick	



# Plastics Interlaboratory Testing Program

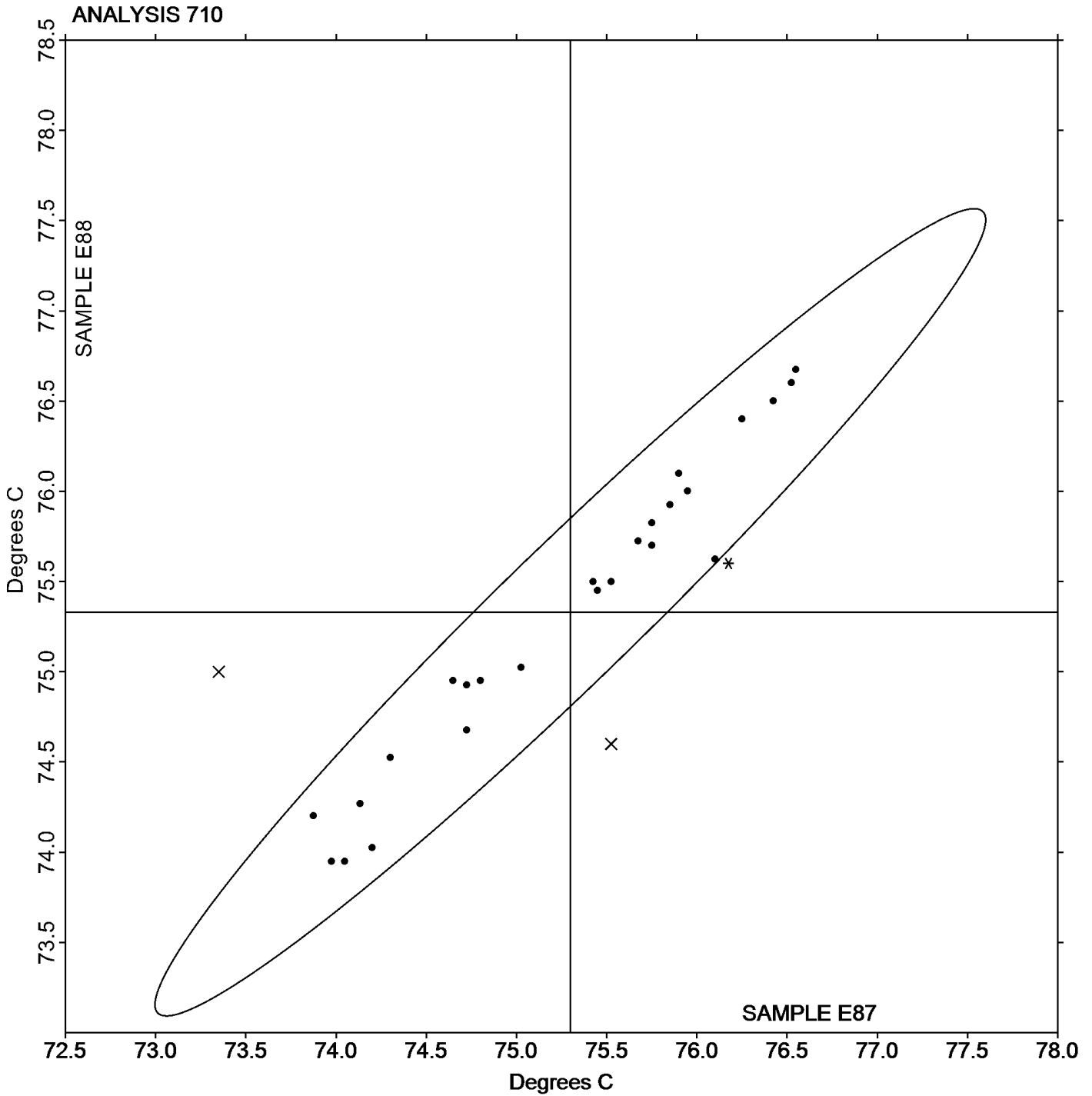
Report #124

## Analysis 710

4th Qtr 2022

Deflection Temp. Under Flexural Load (1.82 MPa) - Degrees C

Grand Mean Sample E87: 75.298 Degrees C    Grand Mean Sample E88: 75.330 Degrees C





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 711

4th Qtr 2022

### Deflection Temp. Under Flexural Load (0.455 MPa) - Degrees C

WebCode	Data Flag	Sample G87			Sample G88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		91.2	-3.8	-1.06	92.2	-1.8	-0.43	IN
3ZZNXW		93.9	-1.1	-0.30	90.5	-3.5	-0.85	CE
74W47V		93.1	-1.8	-0.51	90.0	-4.0	-0.97	XX
8LMQXC		97.6	2.6	0.73	97.2	3.2	0.78	TO
CP8CUF		93.0	-2.0	-0.55	90.3	-3.7	-0.90	XX
ED8HC3		94.4	-0.6	-0.16	93.8	-0.2	-0.06	IN
JQHJZV		93.7	-1.3	-0.35	95.8	1.8	0.45	AT
K8LD7V		103.2	8.2	2.29	103.2	9.2	2.23	ZW
L6QAUZ		91.3	-3.6	-1.02	92.9	-1.1	-0.27	TO
NEN27X		101.2	6.2	1.73	99.0	5.0	1.21	CE
UDWPEE		96.9	1.9	0.54	97.1	3.1	0.75	TO
X8WUP3		94.4	-0.6	-0.17	87.8	-6.2	-1.51	TO
XUQPBV		94.3	-0.7	-0.19	94.0	0.0	0.00	CS
YHM2NQ		91.5	-3.5	-0.97	92.2	-1.8	-0.42	CE

#### Summary Statistics

	Sample G87	Sample G88
<b>Grand Means</b>	94.96 Degrees C	93.98 Degrees C
<b>Stnd Dev Btwn Labs</b>	3.58 Degrees C	4.14 Degrees C

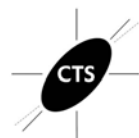
Statistics based on 14 of 14 reporting participants

Sample G87: PP & Sample G88: PP

#### Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CS	CSI	IN	Instron
TO	Tinius Olsen	XX	Instrument manufacturer not specified by lab
ZW	Zwick		





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 712

4th Qtr 2022

### Temp. of Deflection Under Flexural Load (1.80 MPa) - Degrees C

WebCode	Data Flag	Sample N87			Sample N88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27MZHZ		83.13	-0.93	-1.12	81.35	-1.66	-1.92	CE
2ENBMX		84.40	0.35	0.42	83.98	0.97	1.13	CE
2JXHD2		84.55	0.50	0.61	83.80	0.79	0.92	IN
2YTWM4		84.38	0.32	0.39	83.10	0.09	0.11	TY
3RQ26V		85.35	1.30	1.58	84.18	1.17	1.36	IN
3ZK7XW		85.43	1.37	1.67	84.20	1.19	1.39	CE
3ZZNXW		82.63	-1.43	-1.73	81.70	-1.31	-1.52	CE
6NGVFZ		84.85	0.80	0.97	83.25	0.24	0.28	CE
74W47V		83.70	-0.35	-0.42	82.65	-0.36	-0.41	XX
7K2K9N		84.67	0.62	0.75	83.37	0.36	0.42	TO
9QAZKF		83.03	-1.03	-1.24	82.33	-0.68	-0.79	CE
AK84JV		83.00	-1.05	-1.27	82.00	-1.01	-1.17	XX
CGPWVQ		84.50	0.45	0.55	83.10	0.09	0.11	XX
CP8CUF		83.90	-0.15	-0.18	83.03	0.02	0.02	XX
ED8HC3		84.25	0.20	0.24	82.60	-0.41	-0.47	IN
F6PBA6		85.48	1.42	1.73	84.48	1.47	1.71	XX
F7PCDB		84.50	0.45	0.55	83.58	0.57	0.66	TY
G2HKA3		83.03	-1.03	-1.24	81.90	-1.11	-1.28	TO
GQPXKK		83.68	-0.38	-0.46	82.08	-0.93	-1.08	CE
H3GUD7		84.48	0.43	0.52	83.48	0.47	0.55	CE
JQHJZV		84.83	0.77	0.94	84.18	1.17	1.36	AT
K8LD7V		83.88	-0.18	-0.21	83.10	0.09	0.11	ZW
KAMJFF	*	82.48	-1.58	-1.91	82.33	-0.68	-0.79	CE
MRHML3		83.95	-0.10	-0.12	82.40	-0.61	-0.70	CE
MVVRFPP		82.83	-1.23	-1.49	81.85	-1.16	-1.34	CE
PQYHZA		83.53	-0.53	-0.64	82.15	-0.86	-0.99	TO
QDA3CZ	X	80.83	-3.22	-3.90	81.13	-1.87	-2.17	IN
RLF9L9		83.95	-0.10	-0.12	83.15	0.14	0.17	TY
RMPHCK		84.10	0.05	0.06	83.63	0.62	0.72	CE
TT7A2K		85.13	1.08	1.31	83.70	0.69	0.81	CE
UDWPEE		83.73	-0.33	-0.39	82.03	-0.98	-1.14	XX
UNBVYV		83.45	-0.60	-0.73	83.18	0.17	0.20	CE
VNDT24		85.10	1.05	1.27	84.45	1.44	1.68	CF
X9B4UW		83.38	-0.68	-0.82	82.40	-0.61	-0.70	CE
XK6JJX		84.50	0.45	0.55	83.53	0.52	0.60	CE



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 712

4th Qtr 2022

### Temp. of Deflection Under Flexural Load (1.80 MPa) - Degrees C

Summary Statistics		
	<u>Sample N87</u>	<u>Sample N88</u>
<b>Grand Means</b>	84.050 Degrees C	83.005 Degrees C
<b>Stnd Dev Btwn Labs</b>	0.824 Degrees C	0.861 Degrees C
Statistics based on 34 of 35 reporting participants		

Sample N87: ABS & Sample N88: ABS

#### Comments on Assigned Data Flags for Test #712

QDA3CZ (X) - Data for sample N87 are low.

#### Key to Instrument Codes Reported by Participants

- |    |  |    |           |
|----|--|----|-----------|
| AT | Atlas  | CE | Ceast     |
| CF | Coesfeld                                     | IN | Instron   |
| TO | Tinius Olsen                                 | TY | Toyoseiki |
| XX | Instrument manufacturer not specified by lab | ZW | Zwick     |



# Plastics Interlaboratory Testing Program

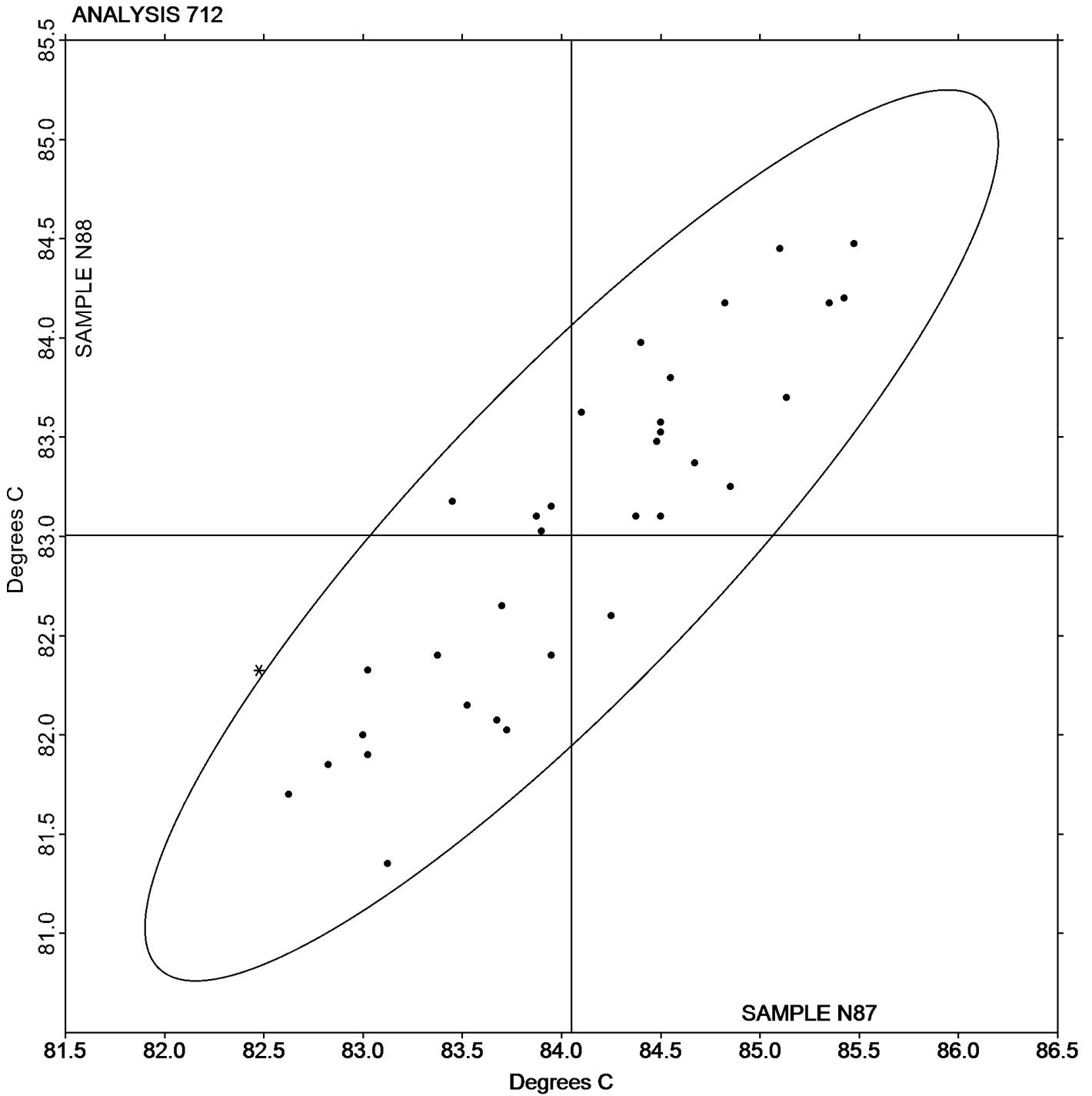
Report #124

## Analysis 712

4th Qtr 2022

Temp. of Deflection Under Flexural Load (1.80 MPa) - Degrees C

Grand Mean Sample N87: 84.050 Degrees C    Grand Mean Sample N88: 83.005 Degrees C





**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 715**

**4th Qtr 2022**

**Vicat Softening Temperature (Rate A)**

WebCode	Data Flag	Sample H87			Sample H88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		139.35	1.37	0.36	139.98	2.11	0.57	TO
3ZZNXW		138.75	0.77	0.20	139.00	1.12	0.30	CE
4PC2EE		136.13	-1.85	-0.49	136.12	-1.76	-0.48	TO
6232KN		139.20	1.22	0.32	139.30	1.42	0.39	DN
6NGVFZ		139.53	1.55	0.41	139.55	1.67	0.45	CE
7B7MBM	*	125.78	-12.20	-3.24	125.82	-12.06	-3.27	IN
7DFMHF		138.58	0.60	0.16	138.92	1.04	0.28	IN
AK84JV		138.58	0.60	0.16	138.68	0.81	0.22	AT
AV3EPG		137.50	-0.48	-0.13	137.23	-0.64	-0.17	XX
F36D78		138.53	0.55	0.15	138.67	0.79	0.21	RO
F6PBA6	*	139.63	1.65	0.44	137.78	-0.09	-0.03	XX
JMFLQN		139.88	1.90	0.51	138.97	1.09	0.30	CF
JQHJZV		139.22	1.24	0.33	139.23	1.36	0.37	AT
K8LD7V		140.72	2.74	0.73	140.90	3.02	0.82	CF
MRHML3		138.97	0.99	0.26	139.02	1.14	0.31	CE
MTDCLP		138.77	0.79	0.21	138.48	0.61	0.16	CE
Q9DH7V	*	127.77	-10.21	-2.72	128.13	-9.74	-2.64	CE
RLF9L9		139.58	1.60	0.43	139.53	1.66	0.45	CF
T8EWNN		139.30	1.32	0.35	138.57	0.69	0.19	XX
VNDT24		139.87	1.89	0.50	139.70	1.82	0.49	CF
X9B4UW		139.63	1.65	0.44	139.28	1.41	0.38	CE
XK6JJX		140.27	2.29	0.61	140.42	2.54	0.69	CF

Summary Statistics		Sample H87	Sample H88
<b>Grand Means</b>		137.980 Degrees C	137.877 Degrees C
<b>Std Dev Btwn Labs</b>		3.760 Degrees C	3.688 Degrees C
Statistics based on 22 of 22 reporting participants			

Sample H87: ABS/PC & Sample H88: ABS/PC





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 715

4th Qtr 2022

### Vicat Softening Temperature (Rate A)

#### Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	DN	DYNISCO
IN	Instron	RO	Rosand
TO	Tinius Olsen	XX	Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

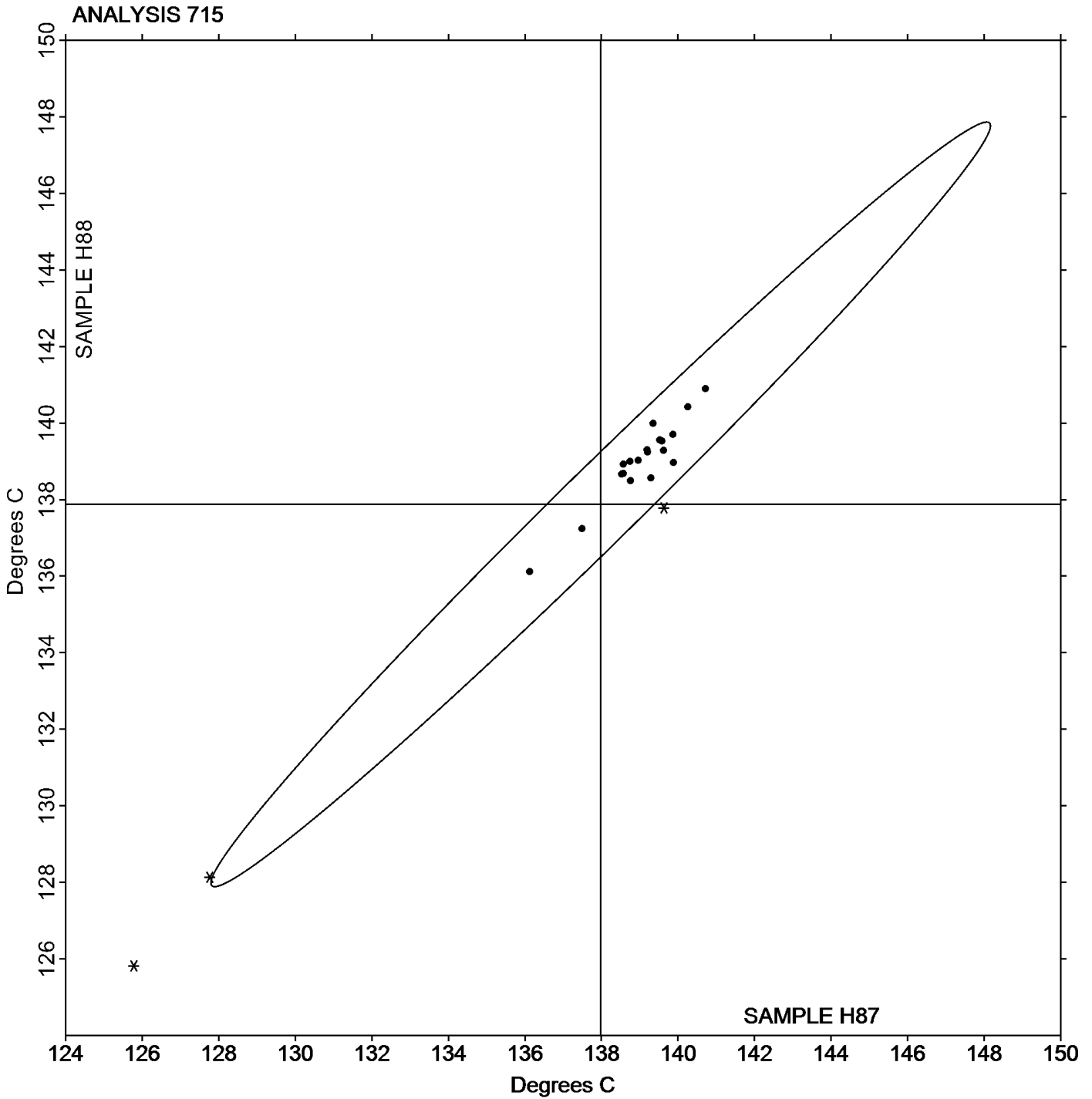
Report #124

## Analysis 715

4th Qtr 2022

### Vicat Softening Temperature (Rate A)

Grand Mean Sample H87: 137.98 Degrees C    Grand Mean Sample H88: 137.88 Degrees C





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 716

4th Qtr 2022

### Vicat Softening Temperature (Rate B)

WebCode	Data Flag	Sample R87			Sample R88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		140.32	1.00	0.26	140.62	1.32	0.33	TO
4PC2EE		137.98	-1.33	-0.34	137.92	-1.38	-0.35	TO
4Y7ZE2		141.57	2.25	0.58	141.58	2.28	0.57	TO
6232KN		140.30	0.98	0.25	140.85	1.55	0.39	DN
6NGVFZ		141.50	2.18	0.56	141.40	2.10	0.52	CE
7B7MBM	*	128.27	-11.05	-2.85	127.82	-11.48	-2.86	IN
7DFMHF		140.15	0.83	0.22	140.15	0.85	0.21	IN
AK84JV		140.52	1.20	0.31	140.65	1.35	0.34	AT
AV3EPG		139.33	0.02	0.00	138.50	-0.80	-0.20	XX
F36D78		140.35	1.03	0.27	140.13	0.83	0.21	RO
F6PBA6		138.23	-1.08	-0.28	137.60	-1.70	-0.42	XX
JMFLQN		141.00	1.68	0.43	141.48	2.18	0.54	CF
JQHJZV		140.85	1.53	0.40	141.42	2.12	0.53	AT
K8LD7V		141.97	2.65	0.68	141.67	2.37	0.59	CF
MRHML3		140.50	1.18	0.31	140.52	1.22	0.30	CE
Q9DH7V	*	127.88	-11.43	-2.95	127.72	-11.58	-2.89	CE
RLF9L9		140.25	0.93	0.24	140.67	1.37	0.34	CF
T8EWNN		140.68	1.37	0.35	140.63	1.33	0.33	XX
VNDT24		142.07	2.75	0.71	141.97	2.67	0.66	CF
X9B4UW		140.80	1.48	0.38	141.13	1.83	0.46	CE
XK6JJX		141.12	1.80	0.46	140.90	1.60	0.40	CF

Summary Statistics		Sample R87	Sample R88
<b>Grand Means</b>		139.316 Degrees C	139.301 Degrees C
<b>Std Dev Btwn Labs</b>		3.874 Degrees C	4.009 Degrees C
Statistics based on 21 of 21 reporting participants			

Sample R87: ABS/PC & Sample R88: ABS/PC

### Key to Instrument Codes Reported by Participants

AT	Atlas	CE	Ceast
CF	Coesfeld	DN	DYNISCO
IN	Instron	RO	Rosand
TO	Tinius Olsen	XX	Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

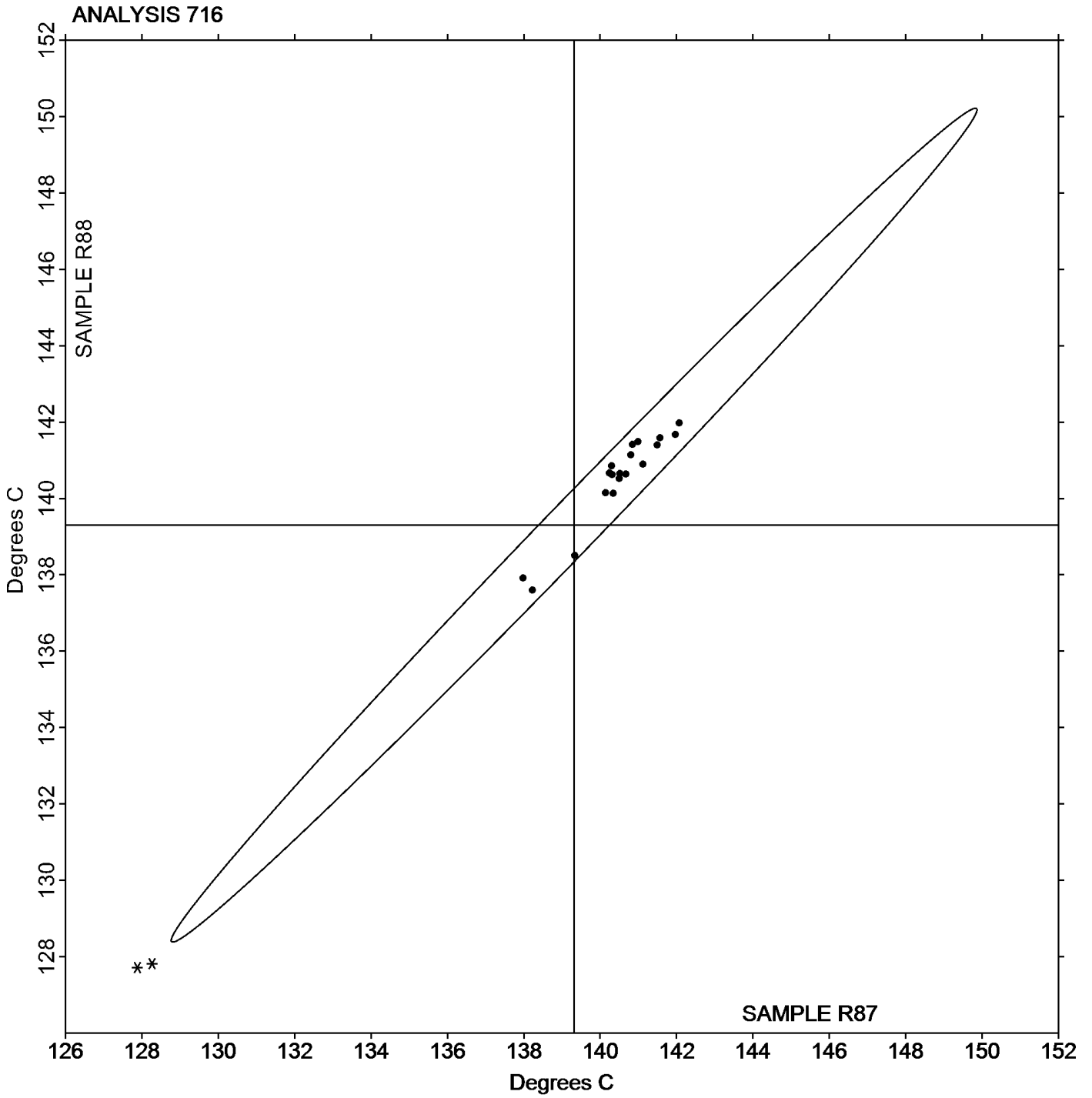
Report #124

## Analysis 716

4th Qtr 2022

### Vicat Softening Temperature (Rate B)

Grand Mean Sample R87: 139.32 Degrees C    Grand Mean Sample R88: 139.30 Degrees C





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 718

4th Qtr 2022

### Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T87			Sample T88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
26TCZ6		1.04367	0.00204	1.02	1.04400	0.00230	1.26
2JXHD2		1.04260	0.00097	0.49	1.04260	0.00090	0.49
2LNGJZ		1.04300	0.00137	0.69	1.04300	0.00130	0.71
2UYRZQ		1.04067	-0.00096	-0.48	1.03967	-0.00204	-1.12
3RQ26V		1.03897	-0.00266	-1.33	1.03930	-0.00240	-1.32
3ZK7XW		1.04293	0.00131	0.65	1.04267	0.00096	0.53
3ZZNXW		1.04363	0.00201	1.01	1.04390	0.00220	1.21
433T7B		1.03900	-0.00263	-1.32	1.03900	-0.00270	-1.49
4Y7ZE2		1.04003	-0.00159	-0.80	1.04013	-0.00157	-0.86
6CNBYA		1.04190	0.00027	0.14	1.04313	0.00143	0.79
6NGVFZ	*	1.04147	-0.00016	-0.08	1.04337	0.00166	0.91
73Q2V4		1.04153	-0.00009	-0.05	1.04160	-0.00010	-0.06
74W47V		1.04033	-0.00129	-0.65	1.04067	-0.00104	-0.57
7K2K9N		1.04117	-0.00046	-0.23	1.04070	-0.00100	-0.55
8ACFAM		1.04167	0.00004	0.02	1.04193	0.00023	0.13
8LMQXC		1.04347	0.00184	0.92	1.04323	0.00153	0.84
9YMZRC	*	1.03667	-0.00496	-2.49	1.03867	-0.00304	-1.67
AK84JV		1.04333	0.00171	0.86	1.04340	0.00170	0.93
B67RLB		1.04330	0.00167	0.84	1.04347	0.00176	0.97
B6ACDK	X	0.99040	-0.05123	-25.69	0.99040	-0.05130	-28.18
CGD4AP		1.04070	-0.00093	-0.47	1.04113	-0.00057	-0.31
CGPWVQ		1.04260	0.00097	0.49	1.04233	0.00063	0.35
CP8CUF		1.04200	0.00037	0.19	1.04300	0.00130	0.71
DQWXZC		1.04370	0.00207	1.04	1.04377	0.00206	1.13
DVVCN2		1.03923	-0.00239	-1.20	1.04003	-0.00167	-0.92
ED8HC3		1.04073	-0.00089	-0.45	1.04000	-0.00170	-0.94
EFVRNP		1.04063	-0.00099	-0.50	1.04203	0.00033	0.18
EL2RHR		1.04193	0.00031	0.15	1.04177	0.00006	0.03
F6PBA6		1.04167	0.00004	0.02	1.04333	0.00163	0.89
FGN8B7		1.03837	-0.00326	-1.64	1.03870	-0.00300	-1.65
FMR9CZ		1.04307	0.00144	0.72	1.04197	0.00026	0.14
GQPXKK		1.04300	0.00137	0.69	1.04340	0.00170	0.93
GZL7LA		1.04387	0.00224	1.12	1.04373	0.00203	1.11
H3GUD7		1.04240	0.00077	0.39	1.04240	0.00070	0.38
HB97BK		1.04033	-0.00129	-0.65	1.04043	-0.00127	-0.70



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 718

4th Qtr 2022

### Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T87			Sample T88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
HERFAJ		1.04200	0.00037	0.19	1.04200	0.00030	0.16
HLRTC9		1.04393	0.00231	1.16	1.04407	0.00236	1.30
JCYYDG		1.03997	-0.00166	-0.83	1.04017	-0.00154	-0.84
JLPBXA		1.04420	0.00257	1.29	1.04407	0.00236	1.30
JMFLQN		1.03980	-0.00183	-0.92	1.03993	-0.00177	-0.97
JQHJZV		1.04280	0.00117	0.59	1.04273	0.00103	0.57
K8LD7V		1.04383	0.00221	1.11	1.04387	0.00216	1.19
KB27WN	X	1.03567	-0.00596	-2.99	1.03487	-0.00684	-3.76
KL2L28		1.04073	-0.00089	-0.45	1.04037	-0.00134	-0.73
KPHW3H		1.04173	0.00011	0.05	1.04173	0.00003	0.02
KR4V6E		1.04100	-0.00063	-0.31	1.04190	0.00020	0.11
L6QAUZ		1.03890	-0.00273	-1.37	1.03917	-0.00254	-1.39
LDKKZN		1.03980	-0.00183	-0.92	1.04027	-0.00144	-0.79
LEYQHY		1.04130	-0.00033	-0.16	1.04230	0.00060	0.33
LMVMPL		1.04100	-0.00063	-0.31	1.04100	-0.00070	-0.39
MBVBP3		1.03800	-0.00363	-1.82	1.03933	-0.00237	-1.30
MDY4KL		1.04267	0.00104	0.52	1.04250	0.00080	0.44
ME8GTM	*	1.03637	-0.00526	-2.64	1.03733	-0.00437	-2.40
MRHML3		1.04047	-0.00116	-0.58	1.03947	-0.00224	-1.23
MVVRFPP		1.04100	-0.00063	-0.31	1.04060	-0.00110	-0.61
N48ALU		1.04233	0.00071	0.35	1.04200	0.00030	0.16
NA2TFE		1.04383	0.00221	1.11	1.04387	0.00216	1.19
NEN27X		1.04383	0.00221	1.11	1.04393	0.00223	1.22
NZ4JB9		1.04277	0.00114	0.57	1.04277	0.00106	0.58
P7B8NA		1.04367	0.00204	1.02	1.04300	0.00130	0.71
PQYHZA		1.04133	-0.00029	-0.15	1.04067	-0.00104	-0.57
QDA3CZ		1.04433	0.00271	1.36	1.04333	0.00163	0.89
R6RVA2		1.04333	0.00171	0.86	1.04350	0.00180	0.99
RLF9L9		1.04300	0.00137	0.69	1.04267	0.00096	0.53
RQ2LNF		1.04393	0.00231	1.16	1.04380	0.00210	1.15
RTETRB		1.03933	-0.00229	-1.15	1.04000	-0.00170	-0.94
RVYRV8		1.04220	0.00057	0.29	1.04219	0.00049	0.27
RY4FE4		1.04393	0.00231	1.16	1.04263	0.00093	0.51
T8EWNN		1.03953	-0.00209	-1.05	1.03880	-0.00290	-1.59
TLDY93		1.04410	0.00247	1.24	1.04323	0.00153	0.84



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 718

4th Qtr 2022

### Specific Gravity - sp gr 23/23 C

WebCode	Data Flag	Sample T87			Sample T88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
TT7A2K		1.03867	-0.00296	-1.49	1.03833	-0.00337	-1.85
U3EZL2		1.04413	0.00251	1.26	1.04433	0.00263	1.44
UNBVYV	X	1.05000	0.00837	4.20	1.04000	-0.00170	-0.94
V848BM		1.04407	0.00244	1.22	1.04430	0.00260	1.43
VNDT24	*	1.03600	-0.00563	-2.82	1.03700	-0.00470	-2.58
X8WUP3		1.04010	-0.00153	-0.77	1.04043	-0.00127	-0.70
X9B4UW	*	1.04433	0.00271	1.36	1.04267	0.00096	0.53
XE2BHW		1.04000	-0.00163	-0.82	1.04000	-0.00170	-0.94
YBUHXW		1.04217	0.00054	0.27	1.04247	0.00076	0.42
ZC4YFT		1.04133	-0.00029	-0.15	1.04000	-0.00170	-0.94

#### Summary Statistics

##### Grand Means

Sample T87  
1.041628 sp gr 23/23 C

Sample T88  
1.041704 sp gr 23/23 C

##### Std Dev Btwn Labs

0.001994 sp gr 23/23 C

0.001821 sp gr 23/23 C

Statistics based on 77 of 80 reporting participants

Sample T87: ABS & Sample T88: ABS

#### Comments on Assigned Data Flags for Test #718

B6ACDK (X) - Data for both samples are low.

KB27WN (X) - Data for both samples are low. Possible Systematic Error.

UNBVYV (X) - Data for sample T87 are high.

#### Results by Methodology (as reported by laboratory)

Test Methodology	Sample T87			Sample T88			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D792 Method A (water)	1.041576	0.002108	0.000	1.041755	0.001853	0.000	58/60
ASTM D792 Method B (not water)	1.041000	0.001465	-0.001	1.040567	0.001865	-0.001	4/4
ISO 1183	1.041993	0.001659	0.000	1.041809	0.001697	0.000	15/16



# Plastics Interlaboratory Testing Program

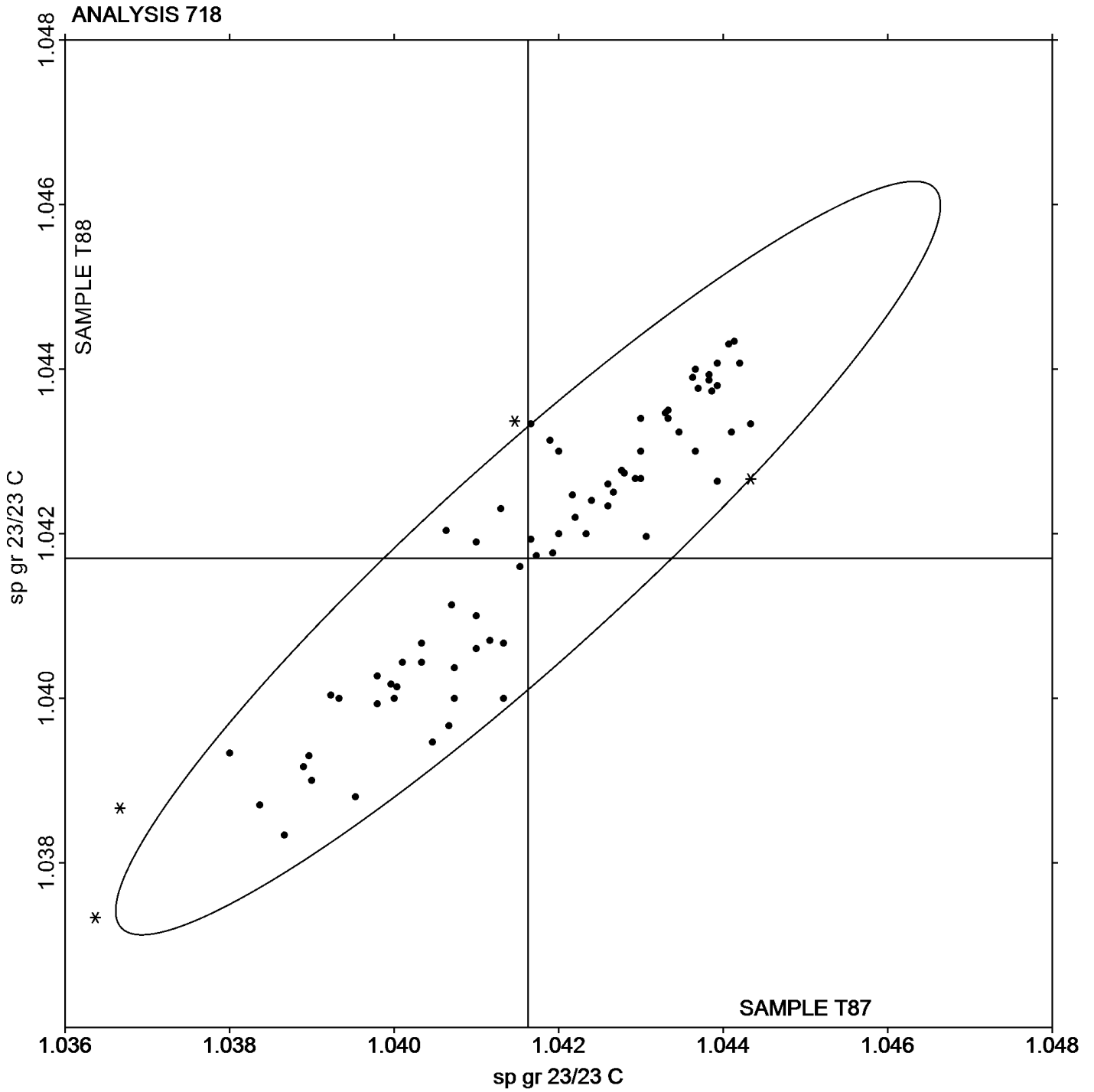
Report #124

Analysis 718

4th Qtr 2022

Specific Gravity - sp gr 23/23 C

Grand Mean Sample T87: 1.0416 sp gr 23/23 C    Grand Mean Sample T88: 1.0417 sp gr 23/23 C







# Plastics Interlaboratory Testing Program

Report #124

## Analysis 720

4th Qtr 2022

### Flexural Modulus- ksi

WebCode	Data Flag	Sample J87			Sample J88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24L3ZK		317.8	-23.7	-1.65	319.2	-22.7	-1.58
3RQ26V		358.9	17.5	1.22	360.0	18.0	1.25
3ZZNXW		330.5	-10.9	-0.76	340.1	-1.8	-0.13
427H72	X	295.2	-46.2	-3.21	307.2	-34.7	-2.41
4Y7ZE2		322.5	-19.0	-1.32	324.6	-17.4	-1.21
6232KN	X	279.0	-62.4	-4.34	283.2	-58.8	-4.09
6NGVFZ		337.5	-3.9	-0.27	334.8	-7.2	-0.50
74W47V		324.6	-16.8	-1.17	332.7	-9.2	-0.64
7AFL8K		332.7	-8.8	-0.61	330.9	-11.1	-0.77
7DFMHF	*	311.9	-29.5	-2.05	323.2	-18.8	-1.30
7K2K9N		361.2	19.7	1.37	366.0	24.0	1.67
7NCKFM		332.7	-8.7	-0.61	330.4	-11.6	-0.80
8LMQXC		337.3	-4.1	-0.29	333.4	-8.6	-0.60
9XQM6J		346.1	4.6	0.32	348.0	6.0	0.42
A6NNA4	X	251.9	-89.5	-6.23	309.9	-32.0	-2.23
AK84JV		331.5	-9.9	-0.69	327.6	-14.4	-1.00
AUTACT		377.9	36.4	2.53	375.7	33.7	2.34
CP8CUF		345.8	4.3	0.30	346.9	5.0	0.35
EB4KAM		340.7	-0.8	-0.05	342.4	0.4	0.03
ED8HC3	*	300.3	-41.1	-2.86	307.5	-34.5	-2.40
EFVRNP		346.6	5.2	0.36	345.6	3.6	0.25
EKF9JL		341.0	-0.4	-0.03	341.1	-0.9	-0.06
EL2RHR		345.2	3.8	0.26	350.2	8.2	0.57
F27G7C		351.8	10.3	0.72	361.5	19.6	1.36
F36D78		348.1	6.6	0.46	350.6	8.7	0.60
F67MPN		369.3	27.8	1.94	368.9	27.0	1.87
F6PBA6		351.8	10.4	0.72	350.8	8.8	0.61
HF37LA		349.4	8.0	0.55	352.4	10.4	0.73
HLRTC9		342.4	1.0	0.07	338.6	-3.4	-0.23
JLPBXA		345.0	3.6	0.25	351.6	9.7	0.67
JMFLQN		327.0	-14.4	-1.00	325.8	-16.2	-1.13
JQHJZV		334.0	-7.4	-0.52	333.3	-8.7	-0.60
K8LD7V		345.1	3.7	0.25	345.9	3.9	0.27
KB27WN		331.5	-9.9	-0.69	333.6	-8.3	-0.58
KZYNLL		339.7	-1.7	-0.12	343.3	1.3	0.09



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 720

4th Qtr 2022

### Flexural Modulus- ksi

WebCode	Data Flag	Sample J87			Sample J88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
L6QAUZ	M	349.2	7.8	0.54	No data reported for this sample		
LMVMLP		331.5	-10.0	-0.69	336.8	-5.2	-0.36
LXQXTB		349.8	8.4	0.58	349.4	7.4	0.52
MDY4KL		333.4	-8.0	-0.56	331.4	-10.6	-0.74
NEN27X		351.7	10.3	0.71	351.4	9.4	0.65
PXJUQV		344.0	2.5	0.17	346.8	4.9	0.34
RLF9L9		332.7	-8.8	-0.61	329.5	-12.5	-0.87
RMPHCK		331.7	-9.7	-0.68	328.7	-13.2	-0.92
TLDY93		360.2	18.7	1.30	360.1	18.1	1.26
UDWPEE		350.1	8.7	0.60	342.6	0.6	0.04
ULLVE6		346.6	5.2	0.36	343.8	1.8	0.13
UP6JGQ		367.0	25.6	1.78	365.3	23.3	1.62
V848BM		341.5	0.1	0.00	333.2	-8.7	-0.61
VNDT24		325.0	-16.4	-1.14	320.4	-21.6	-1.50
WQMRBB		329.3	-12.1	-0.84	331.7	-10.3	-0.72
WX9LHU		342.2	0.8	0.05	337.4	-4.6	-0.32
X8WUP3		342.6	1.2	0.08	334.6	-7.4	-0.51
X9B4UW		333.7	-7.7	-0.54	331.6	-10.4	-0.72
YBUHXW		347.2	5.8	0.40	345.4	3.4	0.24
ZC4YFT	*	364.2	22.8	1.58	372.9	30.9	2.15
ZXLERT		352.7	11.3	0.78	352.8	10.9	0.76

Summary Statistics		
	Sample J87	Sample J88
<b>Grand Means</b>	341.44 ksi	341.96 ksi
<b>Std Dev Btwn Labs</b>	14.38 ksi	14.38 ksi

Statistics based on 52 of 56 reporting participants

Sample J87: ABS/PC & Sample J88: ABS/PC

#### Comments on Assigned Data Flags for Test #720

- L6QAUZ (M) - Participant did not submit data for sample J88.
- A6NNA4 (X) - Data for sample J87 are low. Inconsistent within the determinations of sample J87.
- 427H72 (X) - Data for sample J87 are low. Inconsistent within the determinations of both samples.
- 6232KN (X) - Data for both samples are low. Possible Systematic Error.



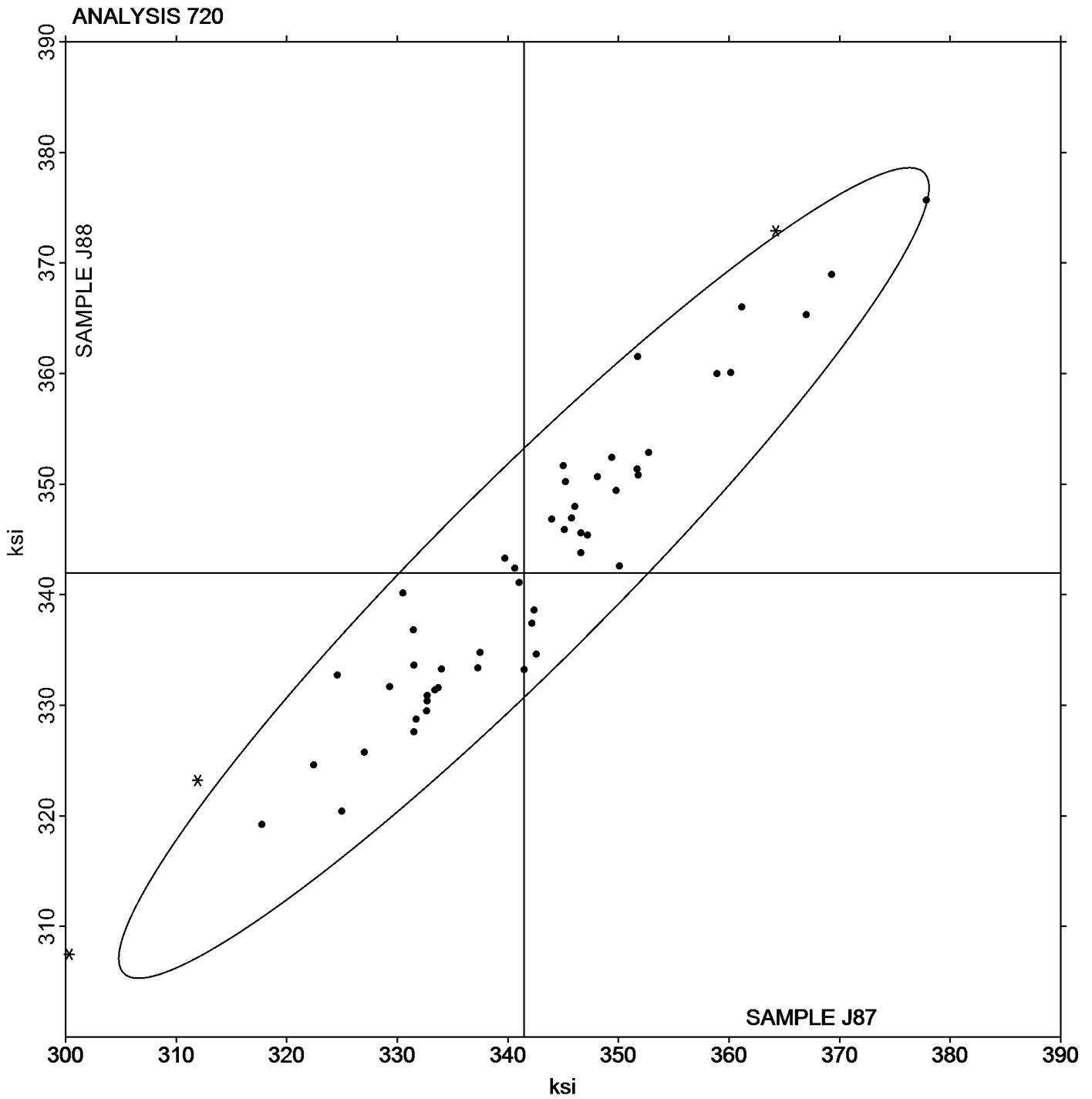
# Plastics Interlaboratory Testing Program

## Analysis 720 Flexural Modulus- ksi

Report #124

4th Qtr 2022

Grand Mean Sample J87: 341.44 ksi    Grand Mean Sample J88: 341.96 ksi





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 721

4th Qtr 2022

### Flexural Stress at 5% Strain - psi

WebCode	Data Flag	Sample J87			Sample J88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24L3ZK		12,024	315	0.80	12,012	310	0.79
3RQ26V		11,791	82	0.21	11,766	63	0.16
3ZZNXW		11,289	-420	-1.07	11,528	-174	-0.44
427H72	X	9,907	-1,801	-4.59	10,373	-1,330	-3.37
6232KN		11,140	-568	-1.45	11,200	-502	-1.27
6NGVFZ		11,975	267	0.68	11,821	119	0.30
7AFL8K		11,211	-497	-1.27	11,150	-553	-1.40
7DFMHF	*	11,127	-581	-1.48	11,403	-299	-0.76
7K2K9N		12,210	502	1.28	12,346	644	1.63
7NCKFM		12,011	302	0.77	11,930	228	0.58
8LMQXC		11,448	-261	-0.66	11,440	-263	-0.67
9XQM6J		11,839	131	0.33	11,950	247	0.63
A6NNA4	X	9,327	-2,381	-6.07	11,028	-675	-1.71
AK84JV		11,395	-313	-0.80	11,300	-402	-1.02
EB4KAM		11,598	-110	-0.28	11,669	-34	-0.09
EKF9JL		11,515	-193	-0.49	11,472	-230	-0.58
F27G7C	*	12,120	412	1.05	12,392	690	1.75
F36D78		12,009	301	0.77	12,038	336	0.85
F6PBA6		12,089	380	0.97	12,074	371	0.94
HF37LA		11,758	49	0.13	11,553	-149	-0.38
HLRTC9		11,300	-408	-1.04	11,080	-622	-1.58
JLPBXA		11,441	-268	-0.68	11,406	-297	-0.75
JMFLQN		11,281	-427	-1.09	11,284	-418	-1.06
JQHJZV		11,948	240	0.61	12,036	333	0.84
K8LD7V		11,719	10	0.03	11,700	-2	-0.01
KB27WN		11,585	-123	-0.31	11,603	-99	-0.25
KZYNLL		11,541	-168	-0.43	11,587	-116	-0.29
L6QAUZ	M	10,742	-967	-2.47	No data reported for this sample		
LMVMPL		10,977	-731	-1.87	11,119	-584	-1.48
LXQXTB		12,070	362	0.92	12,108	406	1.03
NEN27X		11,843	134	0.34	11,905	203	0.51
PXJUQV		11,952	243	0.62	12,023	320	0.81
RLF9L9		11,528	-181	-0.46	11,441	-262	-0.66
RMPHCK		11,874	166	0.42	11,879	177	0.45
TLDY93		11,991	282	0.72	12,009	307	0.78



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 721**

**4th Qtr 2022**

**Flexural Stress at 5% Strain - psi**

WebCode	Data Flag	Sample J87			Sample J88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
UDWPEE	*	12,760	1,052	2.68	12,620	918	2.33
ULLVE6		11,366	-342	-0.87	11,237	-466	-1.18
UP6JGQ		11,753	45	0.11	11,780	77	0.20
V848BM		11,705	-4	-0.01	11,524	-179	-0.45
VNDT24	*	12,820	1,112	2.83	12,600	898	2.28
WQMRBB		11,573	-135	-0.35	11,453	-249	-0.63
WX9LHU		11,180	-528	-1.35	11,020	-682	-1.73
X8WUP3		11,889	180	0.46	11,729	27	0.07
X9B4UW		11,369	-340	-0.87	11,321	-381	-0.97
YBUHXW		11,538	-170	-0.43	11,530	-172	-0.44
ZC4YFT		11,748	40	0.10	11,893	191	0.48
ZXLERT		11,874	166	0.42	11,972	269	0.68

Summary Statistics		
	Sample J87	Sample J88
<b>Grand Means</b>	11,708.5 psi	11,702.3 psi
<b>Std Dev Btwn Labs</b>	392.1 psi	394.6 psi
Statistics based on 44 of 47 reporting participants		

Sample J87: ABS/PC & Sample J88: ABS/PC

**Comments on Assigned Data Flags for Test #721**

- L6QAUZ (M) - Participant did not submit data for sample J88.
- A6NNA4 (X) - Data for sample J87 are low. Inconsistent within the determinations of sample J87.
- 427H72 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.



# Plastics Interlaboratory Testing Program

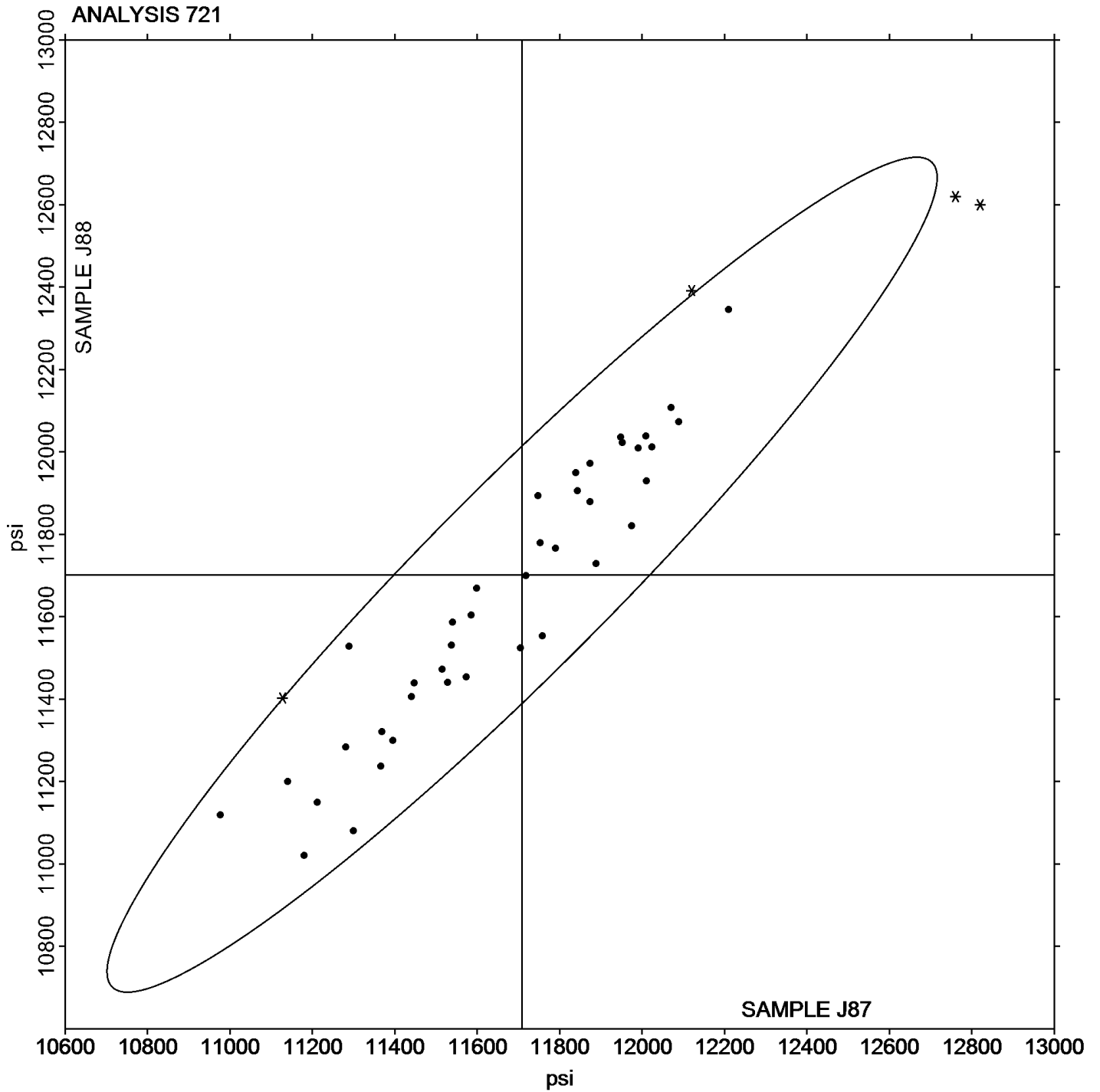
Report #124

## Analysis 721

4th Qtr 2022

Flexural Stress at 5% Strain - psi

Grand Mean Sample J87: 11,708.48 psi    Grand Mean Sample J88: 11,702.32 psi





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 722

4th Qtr 2022

### Flexural Stress at Yield - psi

WebCode	Data Flag	Sample J87			Sample J88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24L3ZK		12,401	486	1.00	12,378	453	0.99
427H72	X	10,937	-978	-2.02	2,657	-9,268	-20.34
4Y7ZE2		11,945	31	0.06	11,957	32	0.07
6232KN		11,420	-495	-1.02	11,480	-445	-0.98
6NGVFZ		11,975	60	0.12	11,819	-106	-0.23
7AFL8K	*	10,805	-1,110	-2.29	10,779	-1,146	-2.52
7DFMHF		11,430	-484	-1.00	11,671	-254	-0.56
7NCKFM		12,245	331	0.68	12,155	231	0.51
8LMQXC		11,832	-82	-0.17	11,835	-90	-0.20
9XQM6J		12,176	261	0.54	12,304	380	0.83
A6NNA4	X	9,765	-2,150	-4.44	11,127	-798	-1.75
AUTACT		12,796	881	1.82	12,754	829	1.82
EB4KAM		11,657	-258	-0.53	11,750	-175	-0.38
ED8HC3		11,411	-504	-1.04	11,548	-377	-0.83
EL2RHR		11,980	65	0.14	12,100	175	0.38
F27G7C		11,953	38	0.08	12,148	224	0.49
F36D78		12,038	124	0.26	12,038	113	0.25
HF37LA		12,377	462	0.95	12,161	237	0.52
JLPBXA		11,549	-366	-0.76	11,495	-429	-0.94
JQHJZV		12,191	277	0.57	12,379	454	1.00
KZYNLL		11,738	-177	-0.37	11,769	-156	-0.34
L6QAUZ	M	10,738	-1,176	-2.43	No data reported for this sample		
LMVMLP		10,977	-938	-1.94	11,119	-806	-1.77
MDY4KL		11,949	34	0.07	11,998	74	0.16
NEN27X		11,679	-236	-0.49	11,749	-176	-0.39
PXJUQV		12,116	201	0.42	12,155	230	0.50
RLF9L9		11,708	-207	-0.43	11,618	-307	-0.67
RMPHCK		12,169	255	0.53	12,158	233	0.51
TLDY93		12,115	201	0.41	12,141	216	0.47
UDWPEE		12,911	997	2.06	12,816	891	1.95
ULLVE6		11,399	-515	-1.06	11,287	-638	-1.40
UP6JGQ		11,986	71	0.15	11,915	-10	-0.02
V848BM		12,090	175	0.36	11,929	4	0.01
VNDT24	*	13,160	1,245	2.57	13,000	1,075	2.36
WQMRBB		11,733	-182	-0.38	11,644	-281	-0.62



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 722**

**4th Qtr 2022**

**Flexural Stress at Yield - psi**

WebCode	Data Flag	<u>Sample J87</u>			<u>Sample J88</u>		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
X9B4UW		11,441	-473	-0.98	11,415	-510	-1.12
ZC4YFT		11,748	-166	-0.34	11,893	-32	-0.07
ZXLERT		11,911	-3	-0.01	12,014	89	0.19

<b>Summary Statistics</b>		<u>Sample J87</u>	<u>Sample J88</u>
<b>Grand Means</b>		11,914.6 psi	11,924.9 psi
<b>Stnd Dev Btwn Labs</b>		484.0 psi	455.8 psi
Statistics based on 35 of 38 reporting participants			

Sample J87: ABS/PC & Sample J88: ABS/PC

**Comments on Assigned Data Flags for Test #722**

- L6QAUZ (M) - Participant did not submit data for sample J88.
- A6NNA4 (X) - Data for sample J87 are low. Inconsistent within the determinations of sample J87.
- 427H72 (X) - Extreme data for sample J88.





# Plastics Interlaboratory Testing Program

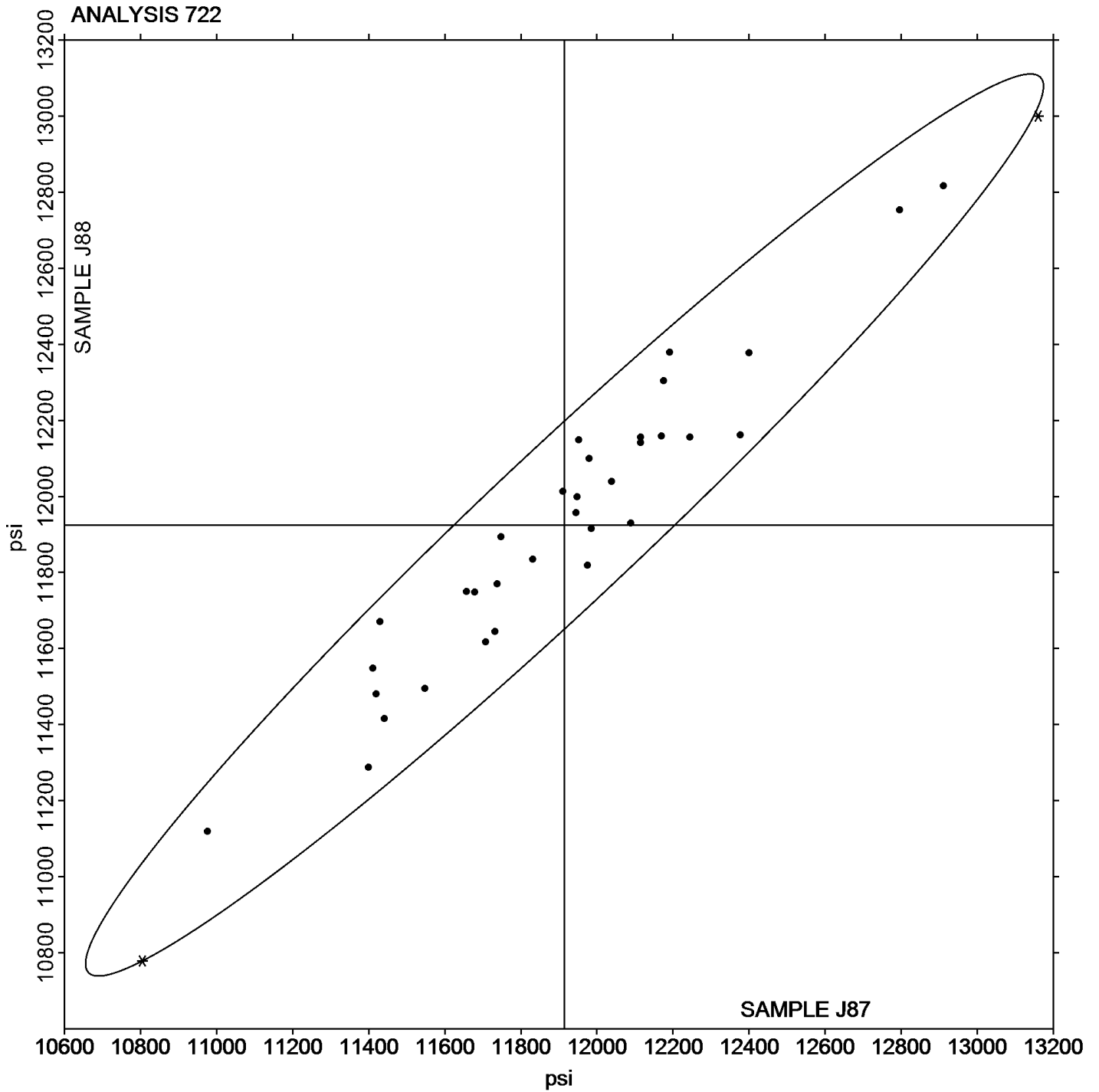
Report #124

## Analysis 722

4th Qtr 2022

### Flexural Stress at Yield - psi

Grand Mean Sample J87: 11,914.61 psi    Grand Mean Sample J88: 11,924.86 psi





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 730

4th Qtr 2022

### Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C87			Sample C88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
26TCZ6		45.18	-0.12	-0.14	45.08	-0.22	-0.26
27MZHZ	X	40.76	-4.54	-4.98	40.58	-4.72	-5.40
2JXHD2		44.20	-1.10	-1.21	44.62	-0.68	-0.78
3FT8NR		46.74	1.43	1.57	46.56	1.25	1.43
3JRGYU		43.30	-2.01	-2.20	43.19	-2.12	-2.42
3RQ26V		44.55	-0.75	-0.82	44.46	-0.84	-0.96
3ZK7XW		45.88	0.57	0.63	45.88	0.57	0.66
4Y7ZE2		45.68	0.38	0.41	46.00	0.70	0.80
6NGVFZ		44.81	-0.50	-0.55	44.83	-0.47	-0.54
74W47V	X	44.76	-0.54	-0.60	43.78	-1.52	-1.74
7B7MBM	*	45.42	0.12	0.13	44.72	-0.58	-0.67
7BBZ3P		46.43	1.13	1.24	46.32	1.02	1.17
7DFMHF		44.84	-0.46	-0.51	44.80	-0.50	-0.58
7K2K9N		45.56	0.26	0.28	45.33	0.03	0.03
8LMQXC		45.98	0.68	0.74	45.96	0.66	0.75
9QAZKF		46.01	0.71	0.78	46.32	1.01	1.16
BXZCHF		45.34	0.04	0.04	45.24	-0.06	-0.07
CGPWVQ		44.94	-0.36	-0.40	45.23	-0.07	-0.08
CP8CUF		45.43	0.12	0.13	45.04	-0.26	-0.30
CPAYA9		43.13	-2.17	-2.38	43.15	-2.15	-2.46
D4NMZH	X	45.02	-0.28	-0.31	43.74	-1.56	-1.79
DQWXZC		44.72	-0.59	-0.64	44.87	-0.44	-0.50
ED8HC3		45.09	-0.22	-0.24	45.09	-0.21	-0.24
F7PCDB		46.24	0.93	1.02	46.41	1.11	1.27
FGN8B7		45.06	-0.24	-0.27	45.48	0.18	0.20
GKL2T8		44.39	-0.91	-1.00	45.07	-0.23	-0.27
H3GUD7		45.59	0.28	0.31	45.68	0.38	0.43
H6Y3BK		45.12	-0.18	-0.20	45.06	-0.24	-0.28
JCYYDG		44.72	-0.58	-0.64	44.86	-0.44	-0.51
JK38NM		44.26	-1.05	-1.15	44.53	-0.77	-0.88
JQHJZV		45.44	0.14	0.15	45.35	0.05	0.05
K8LD7V		45.84	0.53	0.58	45.86	0.56	0.64
KB27WN		44.60	-0.70	-0.77	44.16	-1.15	-1.31
KXLAJK		47.09	1.79	1.96	46.74	1.44	1.64
LEYQHY		45.55	0.25	0.27	45.60	0.30	0.34



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 730

4th Qtr 2022

### Tensile Stress at Yield - MPa

WebCode	Data Flag	Sample C87			Sample C88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MRHML3		44.87	-0.43	-0.47	45.09	-0.21	-0.24
MVVRFPP		45.01	-0.30	-0.33	45.20	-0.10	-0.12
PQYHZA	*	47.56	2.26	2.47	47.60	2.30	2.63
QDA3CZ		46.13	0.82	0.90	46.24	0.94	1.07
R8ADRK		45.38	0.08	0.08	45.08	-0.22	-0.26
RLF9L9		45.54	0.24	0.26	45.56	0.26	0.30
RMPHCK	*	43.21	-2.09	-2.29	43.05	-2.25	-2.58
T3KXDZ		45.40	0.10	0.11	45.36	0.06	0.07
TLDY93		44.76	-0.54	-0.60	44.41	-0.89	-1.02
TQLG7A		44.69	-0.61	-0.67	44.83	-0.47	-0.54
TT7A2K		45.76	0.46	0.50	45.90	0.60	0.68
TXND8V		45.22	-0.09	-0.10	45.14	-0.17	-0.19
U2Y4E9	M	44.87	-0.44	-0.48	No data reported for this sample		
UKX29Q		46.35	1.05	1.15	46.36	1.06	1.21
UNBVYV	*	47.46	2.16	2.36	46.74	1.44	1.64
VNDT24		45.74	0.44	0.48	45.58	0.28	0.32
X9B4UW	*	44.29	-1.02	-1.11	45.05	-0.26	-0.29
XK6JJX	X	37.26	-8.04	-8.82	37.32	-7.99	-9.14
XVHVLU		45.58	0.28	0.30	45.44	0.13	0.15
YKAP3C		45.08	-0.22	-0.25	44.90	-0.40	-0.46
ZLMCKQ		45.64	0.34	0.37	45.69	0.39	0.44
ZPYJE4		45.02	-0.29	-0.31	45.03	-0.27	-0.31

Summary Statistics		
	Sample C87	Sample C88
<b>Grand Means</b>	45.304 MPa	45.303 MPa
<b>Std Dev Btwn Labs</b>	0.912 MPa	0.874 MPa

Statistics based on 52 of 57 reporting participants

Sample C87: ABS & Sample C88: ABS

#### Comments on Assigned Data Flags for Test #730

- 74W47V (X) - Inconsistent in testing between samples.
- XK6JJX (X) - Data for both samples are low. Possible Systematic Error.
- D4NMZH (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- U2Y4E9 (M) - Participant did not submit data for sample C88.
- 27MZHZ (X) - Data for both samples are low. Possible Systematic Error.



# Plastics Interlaboratory Testing Program

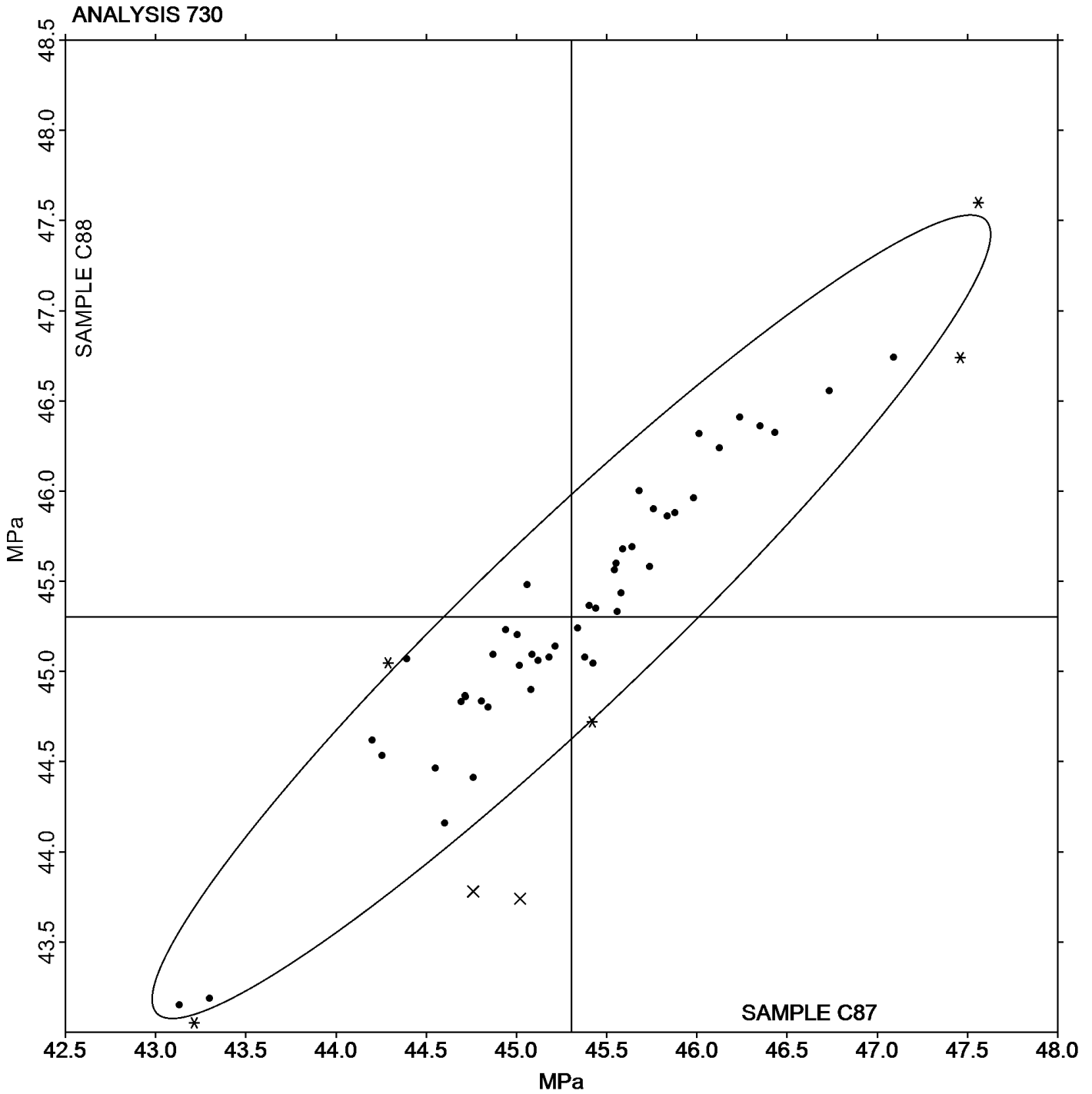
Analysis 730

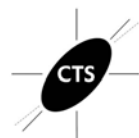
Tensile Stress at Yield - MPa

Report #124

4th Qtr 2022

Grand Mean Sample C87: 45.304 MPa    Grand Mean Sample C88: 45.303 MPa





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 731

4th Qtr 2022

### Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C87			Sample C88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
26TCZ6		31.56	-2.28	-2.04	32.02	-1.70	-1.35
27MZHZ		36.54	2.70	2.42	36.76	3.04	2.41
3FT8NR		33.89	0.05	0.04	33.99	0.27	0.22
3JRGYU	X	43.30	9.46	8.49	43.19	9.47	7.50
3RQ26V		34.10	0.26	0.24	34.19	0.47	0.37
3ZK7XW		33.30	-0.54	-0.48	34.20	0.48	0.38
3ZZNXW		34.41	0.57	0.51	33.61	-0.12	-0.09
6NGVFZ		33.06	-0.78	-0.70	32.57	-1.15	-0.91
6ZVU9M	*	36.56	2.72	2.44	35.57	1.84	1.46
7B7MBM		33.60	-0.24	-0.21	33.28	-0.44	-0.35
7BBZ3P		33.74	-0.09	-0.08	34.92	1.19	0.95
7DFMHF		35.90	2.06	1.85	35.19	1.47	1.16
7K2K9N		34.18	0.34	0.30	33.30	-0.42	-0.33
8LMQXC		34.35	0.51	0.46	34.29	0.57	0.45
BXZCHF	X	7.04	-26.80	-24.05	7.69	-26.03	-20.63
CGPWVQ		34.81	0.98	0.88	34.06	0.34	0.27
CPAYA9		33.12	-0.72	-0.65	32.94	-0.78	-0.62
D4NMZH		35.00	1.16	1.04	34.86	1.14	0.90
F7PCDB		35.55	1.71	1.53	35.00	1.28	1.01
FGN8B7		34.38	0.54	0.48	34.84	1.12	0.89
GKL2T8		32.16	-1.68	-1.51	32.35	-1.37	-1.09
H3GUD7		34.18	0.34	0.31	35.52	1.80	1.43
H6Y3BK	X	10.38	-23.46	-21.05	8.99	-24.73	-19.60
JCYDYG		33.98	0.14	0.13	33.06	-0.66	-0.52
JK38NM		32.90	-0.93	-0.84	33.09	-0.63	-0.50
JQHJZV		33.72	-0.12	-0.11	34.48	0.76	0.60
K8LD7V		32.96	-0.87	-0.78	34.05	0.33	0.26
KB27WN		31.90	-1.94	-1.74	30.79	-2.93	-2.32
KXLAJK		34.66	0.82	0.74	34.44	0.72	0.57
LEYQHY		33.63	-0.21	-0.18	33.66	-0.06	-0.05
MRHML3		32.78	-1.05	-0.95	32.85	-0.87	-0.69
MVVRFP		34.82	0.98	0.88	35.04	1.32	1.04
PQYHZA	*	32.08	-1.76	-1.58	30.00	-3.72	-2.95
QDA3CZ		34.06	0.22	0.20	33.50	-0.22	-0.18
R8ADRK		33.52	-0.32	-0.29	34.50	0.78	0.62



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 731

4th Qtr 2022

### Tensile Stress at Break - MPa

WebCode	Data Flag	Sample C87			Sample C88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RLF9L9		32.31	-1.52	-1.37	32.05	-1.67	-1.33
RMPHCK		35.04	1.21	1.08	34.22	0.49	0.39
T3KXDZ		32.84	-1.00	-0.89	33.75	0.03	0.02
TLDY93		33.23	-0.61	-0.55	32.53	-1.19	-0.94
TQLG7A		33.54	-0.30	-0.27	33.98	0.26	0.20
TT7A2K		34.33	0.50	0.45	34.33	0.61	0.49
TXND8V		34.76	0.92	0.83	34.10	0.38	0.30
U2Y4E9	M	32.36	-1.48	-1.33	No data reported for this sample		
UKX29Q		34.22	0.39	0.35	35.00	1.28	1.01
UNBVYV	X	47.46	13.62	12.22	46.74	13.02	10.32
VNDT24		33.48	-0.36	-0.32	34.12	0.40	0.32
WMTUYQ		33.98	0.14	0.13	34.06	0.34	0.27
X9B4UW		32.02	-1.82	-1.63	31.99	-1.73	-1.37
XK6JJX	X	29.30	-4.54	-4.07	29.90	-3.82	-3.03
XVHVLU		33.02	-0.82	-0.73	32.90	-0.82	-0.65
YKAP3C		33.96	0.12	0.11	33.74	0.02	0.01
ZLMCKQ	*	34.34	0.50	0.45	31.95	-1.78	-1.41
ZPYJE4		33.90	0.06	0.06	33.26	-0.46	-0.36

#### Summary Statistics

	Sample C87	Sample C88
<b>Grand Means</b>	33.838 MPa	33.722 MPa
<b>Std Dev Btwn Labs</b>	1.114 MPa	1.262 MPa

Statistics based on 47 of 53 reporting participants

Sample C87: ABS & Sample C88: ABS

#### Comments on Assigned Data Flags for Test #731

- XK6JJX (X) - Data for both samples are low. Possible Systematic Error.
- 3JRGYU (X) - Data for both samples are high. Possible Systematic Error.
- H6Y3BK (X) - Extreme data.
- BXZCHF (X) - Extreme data.
- UNBVYV (X) - Data for both samples are high. Possible Systematic Error.
- U2Y4E9 (M) - Participant did not submit data for sample C88.





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 732

4th Qtr 2022

### Percent Strain at Yield

WebCode	Data Flag	Sample C87			Sample C88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
26TCZ6		2.440	-0.082	-0.57	2.420	-0.098	-0.74
27MZHZ		2.320	-0.202	-1.41	2.360	-0.158	-1.20
3FT8NR		2.682	0.160	1.11	2.678	0.160	1.21
3JRGYU		2.482	-0.040	-0.28	2.460	-0.058	-0.44
3RQ26V		2.509	-0.013	-0.09	2.514	-0.004	-0.03
3ZK7XW		2.486	-0.036	-0.25	2.472	-0.046	-0.35
6NGVFZ		2.500	-0.022	-0.16	2.494	-0.024	-0.18
7B7MBM		2.734	0.212	1.47	2.690	0.172	1.31
7BBZ3P		2.524	0.002	0.01	2.516	-0.002	-0.01
7DFMHF		2.596	0.074	0.51	2.562	0.044	0.34
7K2K9N		2.558	0.036	0.25	2.522	0.004	0.03
BXZCHF		2.300	-0.222	-1.55	2.300	-0.218	-1.65
CGPWVQ		2.418	-0.104	-0.73	2.478	-0.040	-0.30
D4NMZH	X	2.512	-0.010	-0.07	2.342	-0.176	-1.33
DQWXZC		2.396	-0.126	-0.88	2.428	-0.090	-0.68
F7PCDB		2.502	-0.020	-0.14	2.504	-0.014	-0.10
FGN8B7	*	2.282	-0.240	-1.67	2.366	-0.152	-1.15
GKL2T8		2.550	0.028	0.19	2.576	0.058	0.44
H3GUD7		2.544	0.022	0.15	2.547	0.029	0.22
H6Y3BK		2.681	0.159	1.11	2.681	0.163	1.24
JCYYDG		2.458	-0.064	-0.45	2.444	-0.074	-0.56
JK38NM		2.460	-0.063	-0.44	2.505	-0.012	-0.09
JQHJZV		2.500	-0.022	-0.16	2.500	-0.018	-0.13
K8LD7V		2.508	-0.014	-0.10	2.512	-0.006	-0.04
KB27WN		2.534	0.012	0.08	2.494	-0.024	-0.18
KXLAJK	X	1.942	-0.580	-4.04	1.962	-0.556	-4.21
LEYQHY		2.750	0.228	1.59	2.750	0.232	1.76
MRHML3	*	2.808	0.286	1.99	2.716	0.198	1.50
MVVRFP		2.506	-0.016	-0.11	2.504	-0.014	-0.10
PQYHZA	X	2.500	-0.022	-0.16	2.640	0.122	0.93
QDA3CZ		2.676	0.154	1.07	2.662	0.144	1.09
R8ADRK		2.440	-0.082	-0.57	2.460	-0.058	-0.44
RLF9L9		2.424	-0.098	-0.69	2.436	-0.082	-0.62
RMPHCK		2.340	-0.182	-1.27	2.296	-0.222	-1.68
TLDY93	X	2.218	-0.304	-2.12	2.470	-0.048	-0.36





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 732

4th Qtr 2022

### Percent Strain at Yield

WebCode	Data Flag	Sample C87			Sample C88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
TQLG7A	*	2.544	0.022	0.15	2.628	0.110	0.84
TT7A2K		2.660	0.138	0.96	2.656	0.138	1.05
TXND8V		2.474	-0.048	-0.34	2.478	-0.040	-0.30
U2Y4E9	M	2.417	-0.106	-0.74	No data reported for this sample		
UKX29Q		2.688	0.166	1.15	2.636	0.118	0.90
UNBVYV	X	2.740	0.218	1.52	2.480	-0.038	-0.29
VNDT24		2.320	-0.202	-1.41	2.280	-0.238	-1.80
X9B4UW		2.512	-0.010	-0.07	2.490	-0.028	-0.21
XK6JJX		2.316	-0.206	-1.44	2.292	-0.226	-1.71
XVHVLU		2.450	-0.072	-0.50	2.454	-0.064	-0.48
YKAP3C	*	2.940	0.418	2.91	2.900	0.382	2.90
ZPYJE4		2.606	0.084	0.58	2.566	0.049	0.37

#### Summary Statistics

	Sample C87	Sample C88
<b>Grand Means</b>	2.5224 Percent	2.5177 Percent
<b>Std Dev Btwn Labs</b>	0.1436 Percent	0.1320 Percent

Statistics based on 41 of 47 reporting participants

Sample C87: ABS & Sample C88: ABS

#### Comments on Assigned Data Flags for Test #732

- PQYHZA (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample C88.
- TLDY93 (X) - Inconsistent in testing between samples.
- D4NMZH (X) - Inconsistent in testing between samples.
- UNBVYV (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample C87.
- U2Y4E9 (M) - Participant did not submit data for sample C88.
- KXLAJK (X) - Data for both samples are low. Possible Systematic Error.



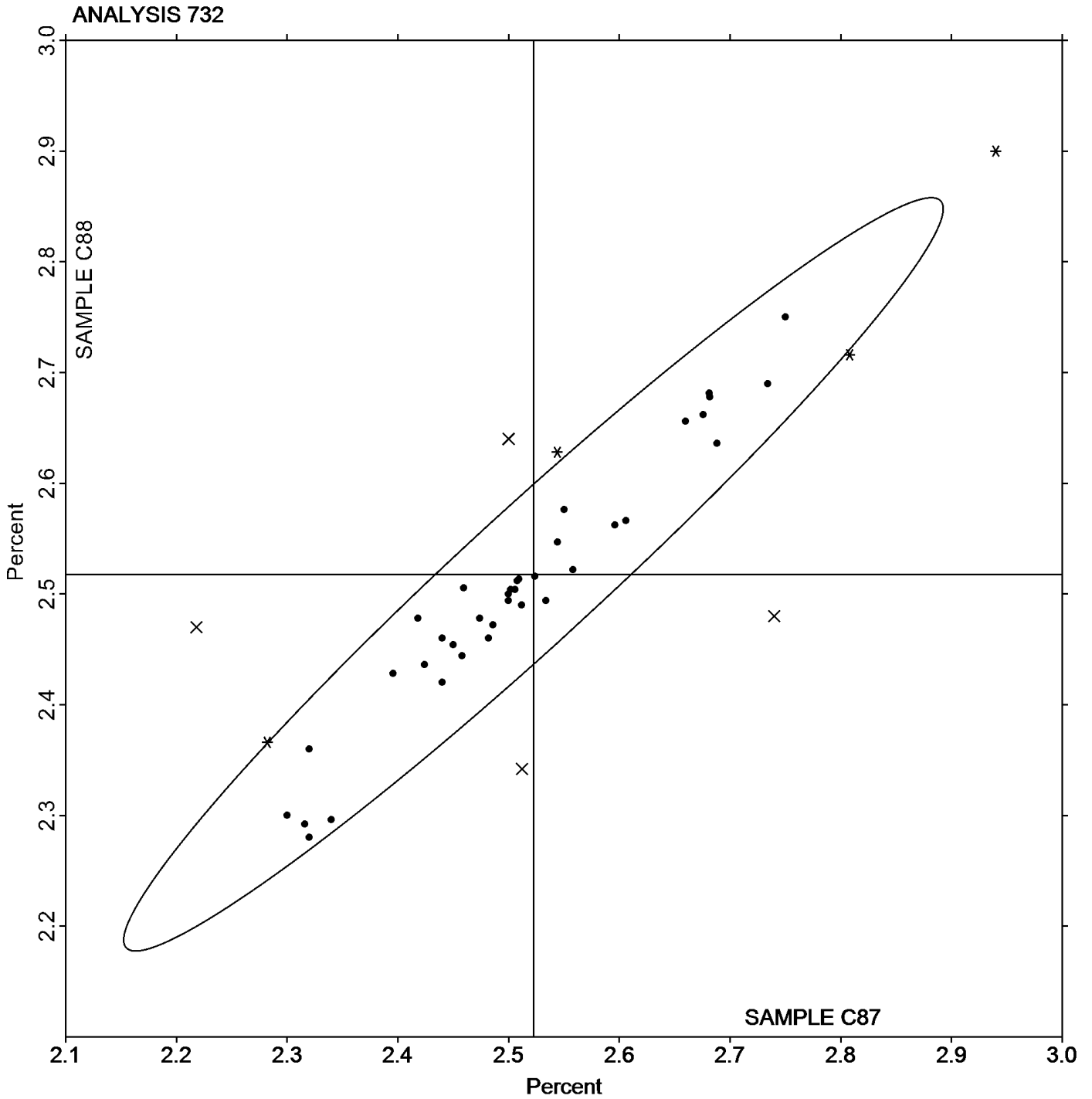
# Plastics Interlaboratory Testing Program

## Analysis 732 Percent Strain at Yield

Report #124

4th Qtr 2022

Grand Mean Sample C87: 2.5224 Percent    Grand Mean Sample C88: 2.5177 Percent





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 734

4th Qtr 2022

### Modulus of Elasticity - MPa

WebCode	Data Flag	Sample C87			Sample C88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
26TCZ6	*	2,368	28	0.39	2,456	112	1.62
27MZHZ		2,329	-11	-0.16	2,332	-12	-0.17
2JXHD2		2,356	16	0.22	2,290	-54	-0.78
3FT8NR		2,420	80	1.13	2,370	26	0.38
3JRGYU		2,262	-79	-1.11	2,270	-74	-1.07
3RQ26V		2,331	-9	-0.13	2,344	0	0.01
3ZK7XW		2,386	46	0.65	2,394	50	0.72
3ZZNXW		2,246	-95	-1.34	2,284	-60	-0.87
4Y7ZE2		2,419	79	1.11	2,417	73	1.06
6NGVFZ		2,318	-22	-0.32	2,310	-34	-0.49
7B7MBM		2,387	47	0.66	2,454	111	1.60
7BBZ3P		2,327	-13	-0.19	2,325	-18	-0.26
7K2K9N		2,269	-71	-1.01	2,248	-95	-1.38
BXZCHF	*	2,539	199	2.82	2,546	202	2.92
CGPWVQ		2,228	-113	-1.60	2,222	-122	-1.77
D4NMZH		2,361	21	0.29	2,339	-4	-0.06
DQWXZC		2,410	69	0.98	2,412	69	0.99
F7PCDB		2,418	77	1.10	2,399	55	0.80
FGN8B7	X	2,659	318	4.51	3,466	1,122	16.23
GKL2T8	X	2,063	-277	-3.93	2,093	-251	-3.63
H3GUD7		2,273	-68	-0.96	2,263	-81	-1.17
H6Y3BK		2,289	-52	-0.73	2,278	-66	-0.95
JCYYDG		2,316	-25	-0.35	2,351	8	0.11
JK38NM		2,425	84	1.20	2,423	79	1.14
JQHJZV		2,284	-56	-0.80	2,298	-46	-0.66
K8LD7V		2,400	60	0.85	2,388	44	0.63
KB27WN		2,349	9	0.12	2,362	19	0.27
KXLAJK		2,336	-4	-0.06	2,359	15	0.22
LEYQHY	X	2,023	-317	-4.50	2,025	-318	-4.61
MRHML3	X	1,858	-483	-6.84	1,960	-383	-5.55
MVVRFPP		2,344	4	0.06	2,344	1	0.01
PQYHZA		2,344	4	0.05	2,372	29	0.42
QDA3CZ		2,188	-152	-2.16	2,186	-158	-2.28
R8ADRK		2,348	8	0.11	2,339	-5	-0.07
RLF9L9		2,355	15	0.21	2,357	13	0.19



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 734**

**4th Qtr 2022**

**Modulus of Elasticity - MPa**

WebCode	Data Flag	Sample C87			Sample C88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RMPHCK		2,356	15	0.21	2,336	-8	-0.11
TLDY93		2,350	10	0.14	2,373	29	0.42
TQLG7A	X	615	-1,726	-24.46	2,219	-125	-1.81
TT7A2K		2,402	62	0.88	2,427	83	1.20
TXND8V		2,362	22	0.31	2,360	17	0.24
U2Y4E9	M	2,470	129	1.83	No data reported for this sample		
UKX29Q		2,363	23	0.32	2,293	-51	-0.73
UNBVYV		2,432	91	1.29	2,419	75	1.09
VNDT24		2,404	64	0.90	2,388	44	0.64
WMTUYQ		2,234	-107	-1.51	2,296	-48	-0.69
X9B4UW		2,200	-141	-2.00	2,253	-91	-1.31
XK6JJX		2,286	-55	-0.77	2,324	-19	-0.28
XVHVLU		2,296	-45	-0.64	2,349	6	0.08
YKAP3C		2,278	-62	-0.89	2,250	-94	-1.36
ZLMCKQ		2,446	105	1.49	2,382	39	0.56
ZPYJE4		2,287	-53	-0.75	2,282	-62	-0.89

Summary Statistics		Sample C87	Sample C88
<b>Grand Means</b>		2,340.5 MPa	2,343.7 MPa
<b>Stnd Dev Btwn Labs</b>		70.6 MPa	69.1 MPa
Statistics based on 45 of 51 reporting participants			

Sample C87: ABS & Sample C88: ABS

**Comments on Assigned Data Flags for Test #734**

- MRHML3 (X) - Data for both samples are low. Possible Systematic Error.
- GKL2T8 (X) - Data for both samples are low. Possible Systematic Error.
- TQLG7A (X) - Extreme data for sample C87.
- FGN8B7 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.
- LEYQHY (X) - Data for both samples are low. Possible Systematic Error.
- U2Y4E9 (M) - Participant did not submit data for sample C88.



# Plastics Interlaboratory Testing Program

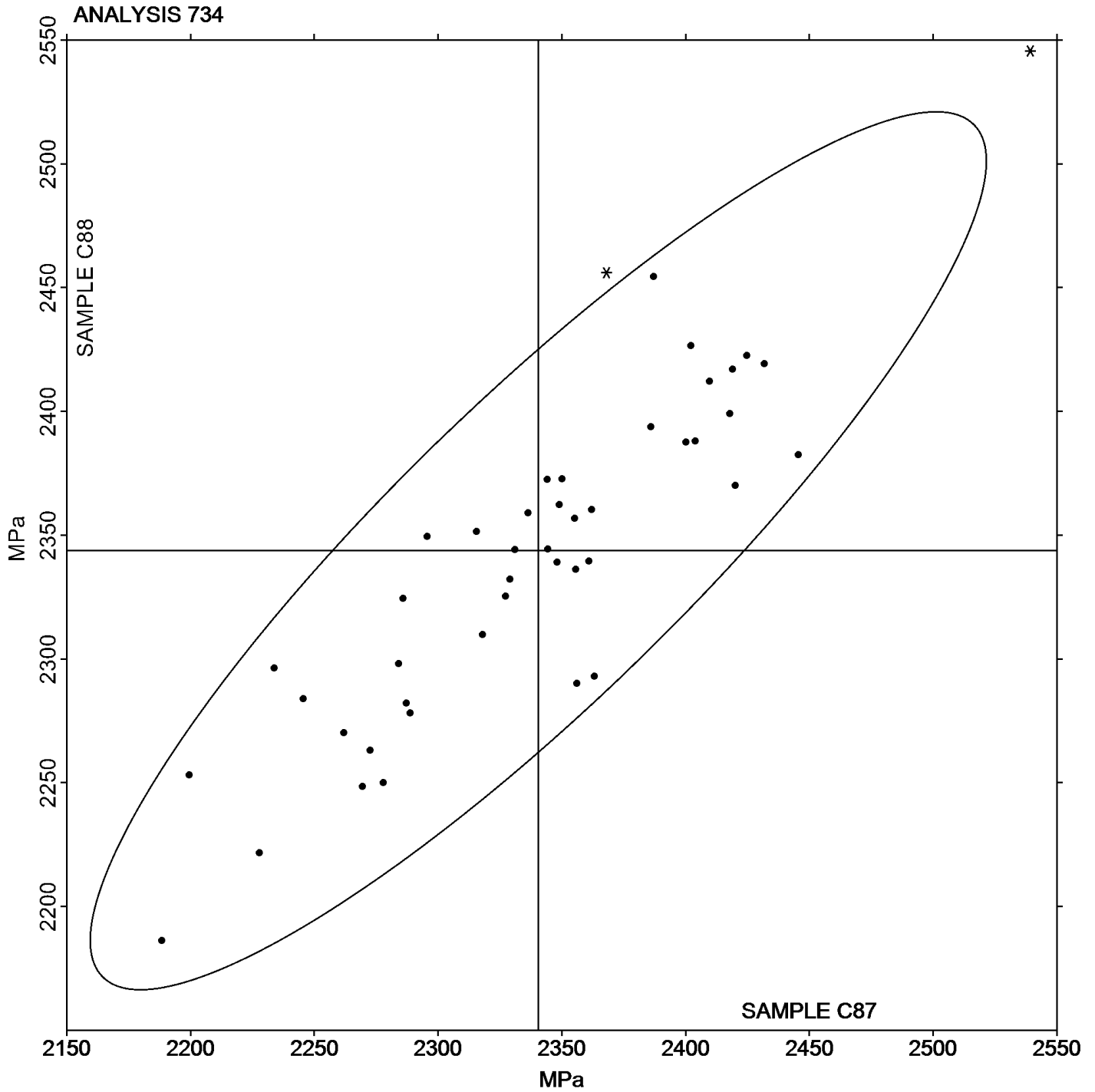
## Analysis 734

### Modulus of Elasticity - MPa

Report #124

4th Qtr 2022

Grand Mean Sample C87: 2,340.45 MPa    Grand Mean Sample C88: 2,343.71 MPa





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 736

4th Qtr 2022

### Flexural Modulus - MPa

WebCode	Data Flag	Sample K87			Sample K88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
26TCZ6		2,497	143	1.51	2,485	146	1.63
27MZHZ		2,381	27	0.29	2,375	36	0.40
2JXHD2		2,306	-48	-0.51	2,330	-9	-0.10
3FT8NR		2,482	128	1.35	2,460	121	1.34
3RQ26V		2,414	60	0.63	2,415	76	0.85
3ZK7XW		2,380	26	0.27	2,380	41	0.45
3ZZNXW		2,273	-81	-0.86	2,308	-31	-0.34
4Y7ZE2		2,372	18	0.19	2,366	27	0.30
6NGVFZ		2,451	97	1.03	2,466	126	1.41
74W47V		2,220	-134	-1.42	2,198	-141	-1.57
7B7MBM	X	2,480	125	1.33	2,650	311	3.46
7BBZ3P		2,584	229	2.43	2,556	217	2.41
7K2K9N		2,411	56	0.60	2,421	82	0.91
9QAZKF		2,372	17	0.18	2,340	1	0.01
CGPWVQ		2,382	27	0.29	2,318	-21	-0.23
CP8CUF		2,326	-28	-0.30	2,306	-33	-0.37
D4NMZH		2,408	54	0.57	2,341	2	0.02
DQWXZC		2,340	-15	-0.15	2,325	-15	-0.16
ED8HC3		2,329	-25	-0.26	2,355	16	0.18
F7PCDB		2,358	3	0.03	2,309	-31	-0.34
H3GUD7		2,336	-18	-0.19	2,341	1	0.02
H6Y3BK		2,297	-57	-0.60	2,278	-61	-0.68
JCYYDG	X	2,442	88	0.93	2,555	216	2.40
JQHJZV		2,370	16	0.17	2,356	16	0.18
K8LD7V	*	2,135	-219	-2.32	2,173	-166	-1.85
KAMJFF		2,175	-179	-1.89	2,216	-123	-1.37
KB27WN		2,316	-39	-0.41	2,285	-54	-0.60
KXLAJK	X	2,615	261	2.76	2,675	335	3.73
LEYQHY		2,455	101	1.07	2,445	105	1.17
MRHML3		2,336	-19	-0.20	2,313	-27	-0.29
MVVRFP		2,354	0	0.00	2,310	-29	-0.32
PQYHZA		2,353	-1	-0.01	2,274	-65	-0.72
QDA3CZ		2,537	183	1.93	2,520	181	2.01
RLF9L9		2,341	-13	-0.14	2,335	-4	-0.04
TLDY93		2,200	-155	-1.63	2,187	-152	-1.69



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 736**

**4th Qtr 2022**

**Flexural Modulus - MPa**

WebCode	Data Flag	Sample K87			Sample K88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
TQLG7A		2,227	-128	-1.35	2,200	-139	-1.54
TT7A2K		2,493	139	1.47	2,484	145	1.61
UDWPPEE		2,357	3	0.03	2,305	-34	-0.38
UKX29Q		2,356	2	0.02	2,308	-31	-0.35
UNBVYV		2,400	45	0.48	2,402	63	0.70
VNNDT24		2,300	-54	-0.57	2,250	-89	-0.99
X9B4UW		2,427	72	0.77	2,379	40	0.45
XK6JJX		2,298	-56	-0.60	2,294	-45	-0.50
XVHVLU		2,332	-23	-0.24	2,299	-40	-0.45
YKJ7W7		2,200	-155	-1.63	2,237	-102	-1.14
ZPYJE4	X	1,893	-462	-4.88	1,930	-409	-4.55

Summary Statistics		
	Sample K87	Sample K88
<b>Grand Means</b>	2,354.3 MPa	2,339.1 MPa
<b>Stnd Dev Btwn Labs</b>	94.5 MPa	89.9 MPa
Statistics based on 42 of 46 reporting participants		

Sample K87: ABS & Sample K88: ABS

**Comments on Assigned Data Flags for Test #736**

- 7B7MBM (X) - Data for sample K88 are high.
- JCYDYG (X) - Inconsistent in testing between samples.
- ZPYJE4 (X) - Data for both samples are low. Possible Systematic Error.
- KXLAJK (X) - Data for both samples are high. Possible Systematic Error.



# Plastics Interlaboratory Testing Program

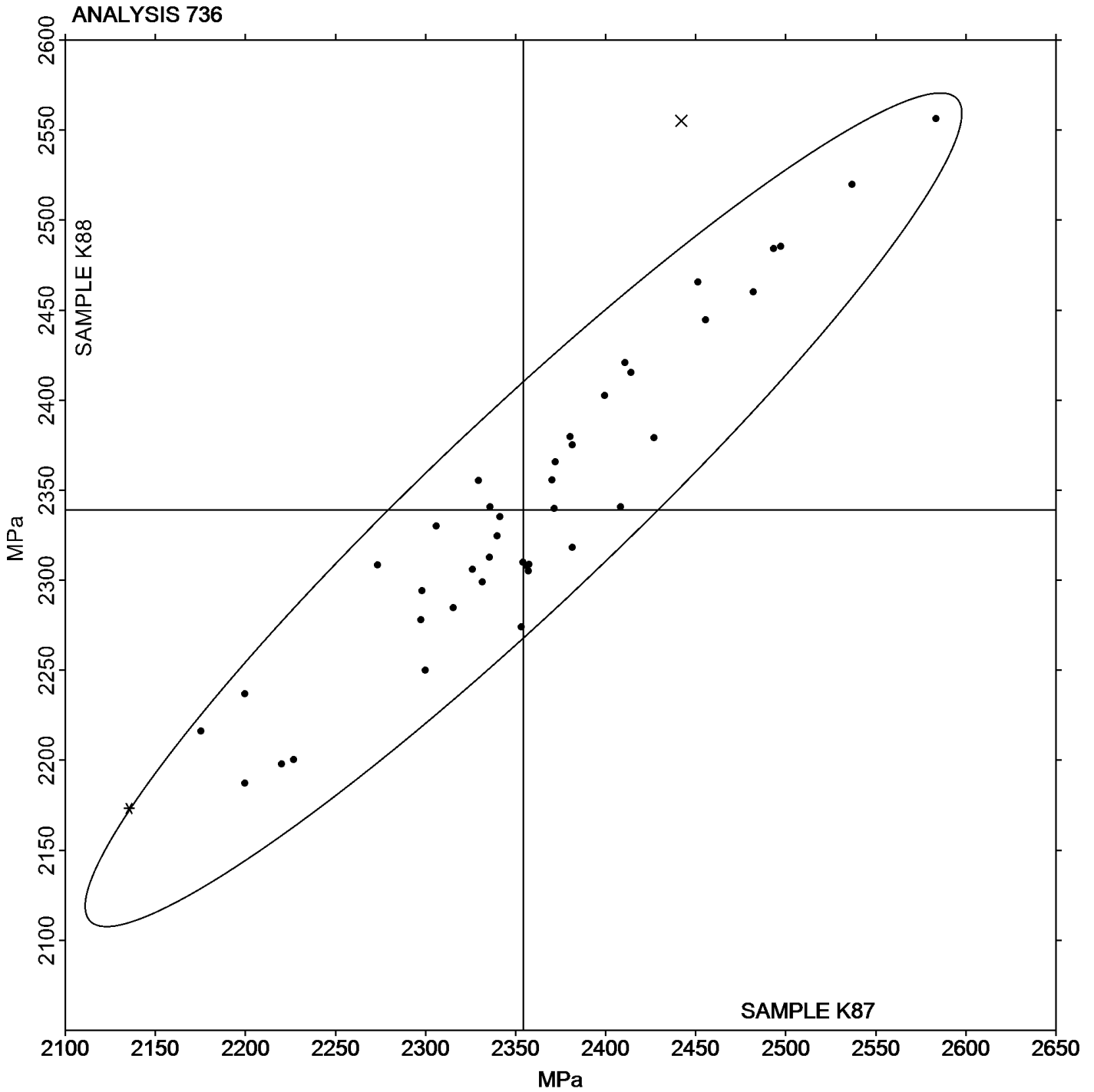
Analysis 736

Flexural Modulus - MPa

Report #124

4th Qtr 2022

Grand Mean Sample K87: 2,354.35 MPa    Grand Mean Sample K88: 2,339.12 MPa







# Plastics Interlaboratory Testing Program

Report #124

## Analysis 737

4th Qtr 2022

### Flexural Stress at 3.5% Strain - MPa

WebCode	Data Flag	Sample K87			Sample K88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
26TCZ6		67.74	0.04	0.02	67.38	-0.08	-0.05
27MZHZ		68.94	1.23	0.73	68.75	1.29	0.80
3FT8NR		68.20	0.50	0.29	67.28	-0.18	-0.11
3RQ26V		69.23	1.53	0.90	69.21	1.75	1.08
3ZK7XW		69.23	1.53	0.90	68.53	1.07	0.67
3ZZNXW		69.40	1.70	1.00	69.40	1.94	1.20
6NGVFZ		67.76	0.06	0.04	67.91	0.44	0.28
7B7MBM	X	65.42	-2.28	-1.35	68.36	0.90	0.56
7BBZ3P	*	72.12	4.41	2.60	71.46	3.99	2.48
CGPWVQ		68.60	0.90	0.53	68.48	1.01	0.63
D4NMZH		67.49	-0.21	-0.13	66.30	-1.16	-0.72
DQWXZC		67.47	-0.23	-0.14	67.41	-0.05	-0.03
F7PCDB		68.59	0.88	0.52	68.45	0.99	0.62
H3GUD7		67.78	0.08	0.05	67.72	0.26	0.16
H6Y3BK		68.67	0.97	0.57	68.12	0.66	0.41
JCYYDG		69.69	1.98	1.17	69.48	2.02	1.25
JQHJZV		68.25	0.54	0.32	67.99	0.53	0.33
K8LD7V		66.98	-0.72	-0.43	66.94	-0.52	-0.32
KAMJFF		65.56	-2.15	-1.27	65.71	-1.76	-1.09
KB27WN		66.68	-1.02	-0.60	66.28	-1.19	-0.74
KXLAJK		68.48	0.78	0.46	69.34	1.88	1.17
LEYQHY		66.04	-1.67	-0.98	65.86	-1.60	-1.00
MRHML3		66.49	-1.21	-0.72	67.06	-0.41	-0.25
MVVRFPP		66.59	-1.11	-0.66	65.81	-1.66	-1.03
PQYHZA	*	68.22	0.51	0.30	66.60	-0.86	-0.53
QDA3CZ	*	63.21	-4.50	-2.65	62.99	-4.47	-2.77
RLF9L9		67.55	-0.16	-0.09	67.51	0.05	0.03
TLDY93		67.53	-0.17	-0.10	67.44	-0.02	-0.01
TQLG7A		65.81	-1.90	-1.12	65.89	-1.57	-0.98
TT7A2K		69.99	2.29	1.35	69.99	2.53	1.57
UDWPEE		68.68	0.98	0.58	67.76	0.30	0.19
UKX29Q		69.86	2.15	1.27	69.13	1.67	1.04
UNBVYV		66.66	-1.04	-0.62	66.08	-1.38	-0.86
VNDT24		68.00	0.30	0.17	67.03	-0.43	-0.27
X9B4UW		66.43	-1.27	-0.75	66.78	-0.68	-0.42



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 737**

**4th Qtr 2022**

**Flexural Stress at 3.5% Strain - MPa**

WebCode	Data Flag	Sample K87			Sample K88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
XK6JJX		65.82	-1.88	-1.11	65.62	-1.84	-1.14
XVHVLU		68.06	0.35	0.21	67.79	0.32	0.20
YKJ7W7	*	63.59	-4.11	-2.42	64.35	-3.12	-1.93
ZPYJE4		67.36	-0.34	-0.20	67.72	0.26	0.16

Summary Statistics		Sample K87	Sample K88
<b>Grand Means</b>		67.704 MPa	67.462 MPa
<b>Std Dev Btwn Labs</b>		1.696 MPa	1.611 MPa
Statistics based on 38 of 39 reporting participants			

Sample K87: ABS & Sample K88: ABS

**Comments on Assigned Data Flags for Test #737**

7B7MBM (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.



# Plastics Interlaboratory Testing Program

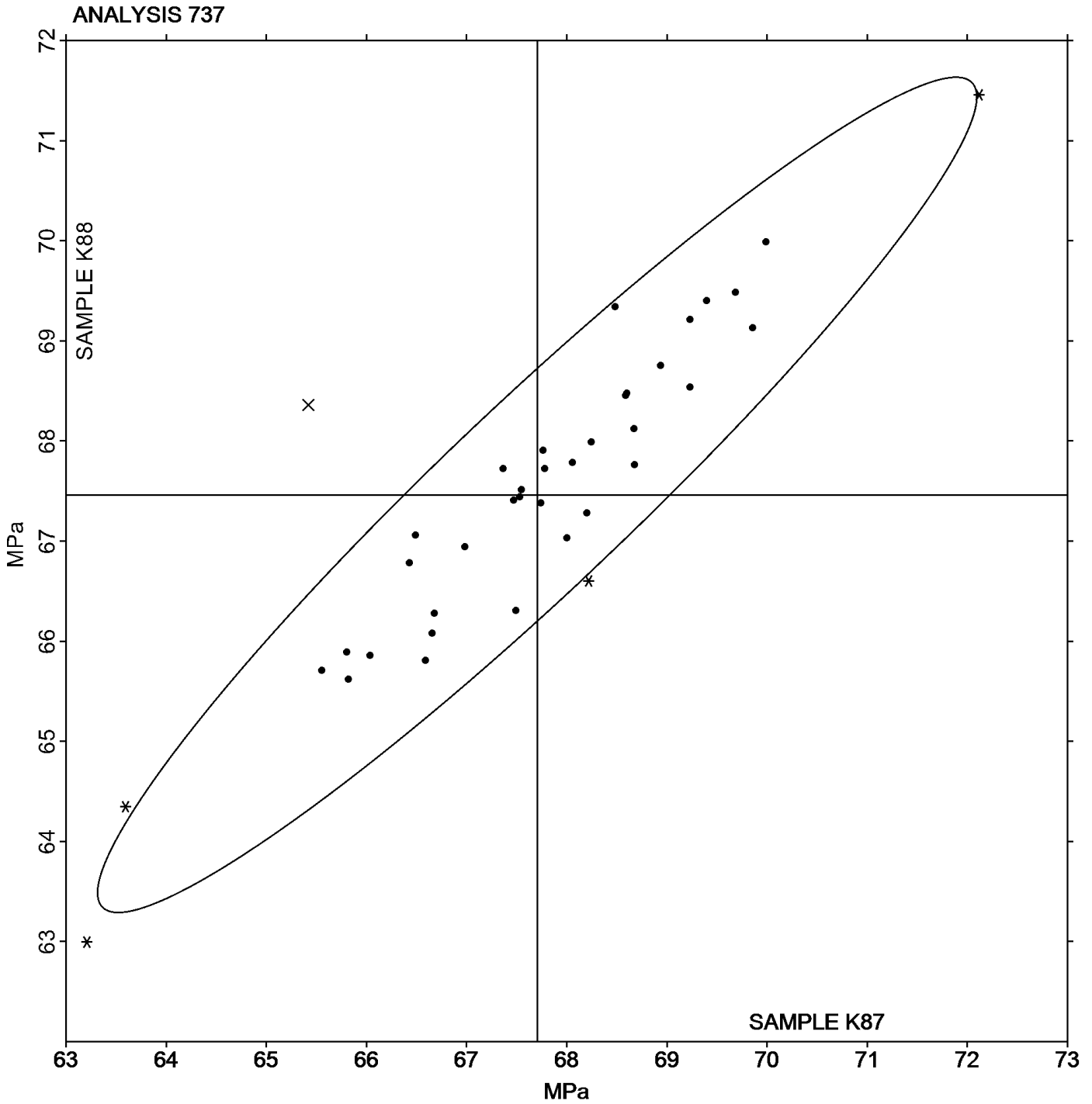
## Analysis 737

### Flexural Stress at 3.5% Strain - MPa

Report #124

4th Qtr 2022

Grand Mean Sample K87: 67.704 MPa    Grand Mean Sample K88: 67.462 MPa





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 738

4th Qtr 2022

### Flexural Stress at Yield - MPa

WebCode	Data Flag	Sample K87			Sample K88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3RQ26V		70.12	1.24	0.76	70.24	1.45	0.94
4Y7ZE2		69.05	0.16	0.10	69.01	0.21	0.14
6NGVFZ		69.20	0.31	0.19	69.32	0.53	0.34
7B7MBM	X	65.98	-2.90	-1.78	68.92	0.13	0.08
7BBZ3P		73.08	4.20	2.58	72.43	3.63	2.35
7K2K9N		72.44	3.56	2.18	72.40	3.61	2.34
CGPWVQ		69.28	0.40	0.24	69.57	0.78	0.50
D4NMZH		68.86	-0.02	-0.01	67.88	-0.91	-0.59
ED8HC3		69.80	0.91	0.56	69.54	0.75	0.49
F7PCDB		70.06	1.17	0.72	70.07	1.28	0.83
H3GUD7		69.33	0.45	0.28	69.43	0.64	0.41
H6Y3BK		68.67	-0.21	-0.13	68.12	-0.67	-0.43
JCYYDG		70.25	1.37	0.84	70.39	1.60	1.04
JQHJZV		69.79	0.91	0.56	69.69	0.89	0.58
K8LD7V		68.58	-0.30	-0.18	69.03	0.24	0.15
KAMJFF		66.83	-2.06	-1.26	66.96	-1.83	-1.19
KB27WN		68.24	-0.64	-0.39	67.42	-1.38	-0.89
KXLAJK		68.51	-0.37	-0.23	69.25	0.46	0.30
LEYQHY		66.98	-1.91	-1.17	66.91	-1.88	-1.22
MRHML3		67.49	-1.40	-0.86	68.13	-0.66	-0.43
MVVRFPP		67.68	-1.20	-0.74	67.25	-1.54	-1.00
PQYHZA		69.17	0.29	0.18	67.74	-1.05	-0.68
RLF9L9		68.80	-0.08	-0.05	68.86	0.07	0.04
TLDY93		68.40	-0.49	-0.30	67.90	-0.89	-0.58
TQLG7A		67.32	-1.56	-0.96	67.41	-1.38	-0.89
TT7A2K		70.53	1.64	1.01	70.67	1.87	1.21
UDWPEE		69.80	0.92	0.56	69.08	0.29	0.19
UNBVYV	X	15.12	-53.76	-33.01	15.74	-53.05	-34.37
VNDT24		69.15	0.27	0.17	68.10	-0.69	-0.45
X9B4UW		67.44	-1.45	-0.89	67.77	-1.02	-0.66
XK6JJX		66.86	-2.02	-1.24	66.74	-2.05	-1.33
XVHVLU		69.54	0.65	0.40	69.48	0.69	0.45
YKJ7W7	*	64.41	-4.47	-2.75	65.36	-3.43	-2.22
ZPYJE4		68.60	-0.28	-0.17	69.19	0.39	0.25



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 738

4th Qtr 2022

### Flexural Stress at Yield - MPa

Summary Statistics	<u>Sample K87</u>	<u>Sample K88</u>
<b>Grand Means</b>	68.883 MPa	68.792 MPa
<b>Stnd Dev Btwn Labs</b>	1.629 MPa	1.544 MPa

Statistics based on 32 of 34 reporting participants

Sample K87: ABS & Sample K88: ABS

#### **Comments on Assigned Data Flags for Test #738**

7B7MBM (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

UNBVYV (X) - Extreme data.



# Plastics Interlaboratory Testing Program

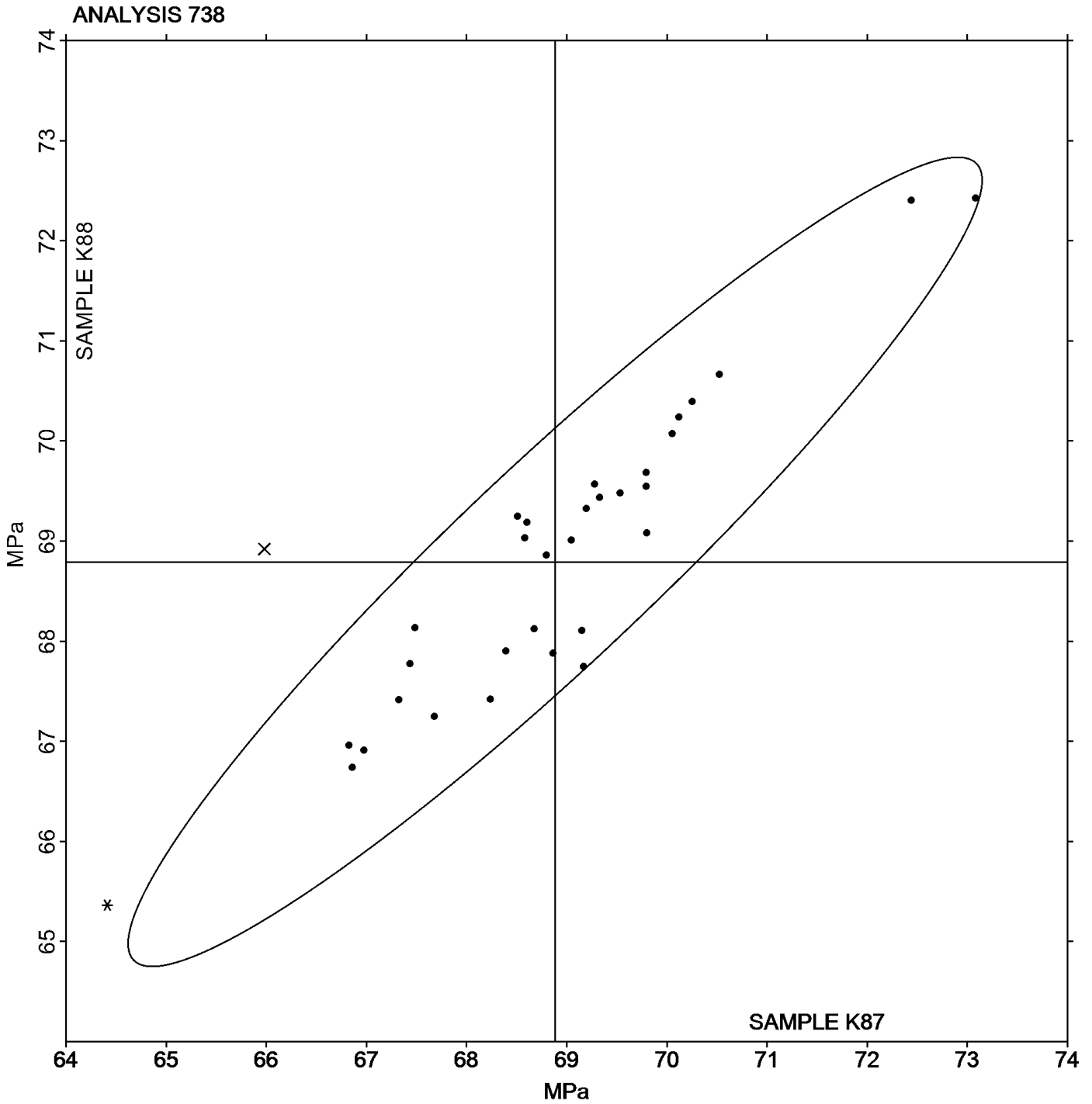
## Analysis 738

### Flexural Stress at Yield - MPa

Report #124

4th Qtr 2022

Grand Mean Sample K87: 68.883 MPa    Grand Mean Sample K88: 68.792 MPa





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 750

4th Qtr 2022

### Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

WebCode	Data Flag	Sample X87			Sample X88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26TCZ6		11.90	-0.11	-0.17	11.88	-0.23	-0.29	XX
27MZHZ		11.65	-0.36	-0.54	11.66	-0.44	-0.57	DY
2JXHD2		13.05	1.04	1.57	13.05	0.95	1.22	TO
2UYRZQ		11.92	-0.09	-0.14	12.20	0.10	0.13	CE
2YTWM4		10.85	-1.16	-1.74	11.35	-0.75	-0.97	XX
3FT8NR		11.57	-0.44	-0.66	11.75	-0.35	-0.45	XX
3XU8HD		12.10	0.09	0.14	12.62	0.51	0.66	TO
3ZK7XW		12.03	0.02	0.03	12.21	0.10	0.13	DY
3ZZNXW		11.71	-0.30	-0.45	12.29	0.19	0.24	TO
4MR3CH	*	12.10	0.09	0.14	13.05	0.95	1.22	TO
4PC2EE		12.00	-0.01	-0.01	12.21	0.10	0.13	TO
4Y7ZE2		12.14	0.13	0.20	12.17	0.06	0.08	TO
6232KN		11.62	-0.39	-0.58	11.36	-0.74	-0.96	TO
6NGVFZ		11.55	-0.46	-0.69	11.90	-0.20	-0.26	KA
6ZVU9M		13.41	1.41	2.11	13.33	1.23	1.58	KA
74W47V		11.95	-0.06	-0.09	12.36	0.26	0.33	XX
7B7MBM		12.83	0.82	1.23	12.98	0.88	1.13	TO
7K2K9N		11.99	-0.02	-0.03	12.34	0.23	0.30	WZ
8ACFAM	X	4.90	-7.11	-10.66	4.87	-7.23	-9.31	GO
8LMQXC		12.10	0.09	0.14	12.00	-0.10	-0.13	TO
8NM4CP		11.31	-0.69	-1.04	11.33	-0.77	-0.99	TO
ABW2XU		11.63	-0.38	-0.57	11.55	-0.55	-0.71	CE
AK84JV		13.09	1.08	1.63	12.92	0.81	1.05	TO
AUTACT		12.62	0.61	0.91	13.43	1.33	1.71	TO
B6ACDK		12.25	0.24	0.37	12.35	0.25	0.32	CE
B8E43C		11.52	-0.49	-0.74	11.55	-0.55	-0.71	QT
BKHEND		11.48	-0.53	-0.80	11.63	-0.48	-0.61	TO
CGD4AP		13.10	1.09	1.63	13.20	1.10	1.41	TO
CGPWVQ		12.33	0.32	0.49	12.38	0.28	0.36	WZ
CP8CUF		12.70	0.70	1.05	13.09	0.99	1.27	XX
CZ9WUM		12.75	0.74	1.12	12.45	0.35	0.45	XX
D4NMZH		13.60	1.59	2.39	13.85	1.75	2.25	AT
DPNUGL	*	12.65	0.64	0.97	13.58	1.48	1.90	TO
ED8HC3		11.90	-0.11	-0.16	11.84	-0.26	-0.34	TO
EFLBUV		11.27	-0.74	-1.11	11.23	-0.87	-1.12	TO



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 750

4th Qtr 2022

### Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

WebCode	Data Flag	Sample X87			Sample X88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
EJTFZQ		11.70	-0.31	-0.46	11.50	-0.61	-0.78	TO
EL2RHR		12.77	0.76	1.14	12.55	0.44	0.57	RR
EV98QK		11.94	-0.07	-0.10	11.75	-0.35	-0.45	TO
F36D78		12.21	0.20	0.31	12.26	0.15	0.20	TO
F67MPN		11.75	-0.26	-0.39	12.35	0.25	0.32	TO
F6PBA6		11.80	-0.21	-0.31	11.95	-0.15	-0.20	XX
FGN8B7		12.10	0.09	0.14	12.00	-0.10	-0.13	KA
GLBE96		12.60	0.59	0.89	12.65	0.55	0.71	TO
GZL7LA	X	12.65	0.64	0.97	14.45	2.35	3.02	AT
HB97BK		11.65	-0.36	-0.53	11.80	-0.30	-0.39	TO
J2YD8H	*	10.13	-1.88	-2.82	9.70	-2.41	-3.10	TO
JCYDYG		12.90	0.89	1.34	13.20	1.10	1.41	WZ
JLPBXA	*	13.10	1.09	1.64	12.60	0.50	0.64	TO
JMFLQN		11.14	-0.87	-1.30	11.13	-0.98	-1.26	WZ
JQHJZV		12.44	0.43	0.64	12.66	0.55	0.71	TO
K8LD7V		10.79	-1.22	-1.83	10.91	-1.19	-1.53	WZ
KPHW3H		12.23	0.22	0.34	12.11	0.00	0.00	TO
KZYNLL		11.09	-0.92	-1.38	10.90	-1.21	-1.55	DY
L6QAUZ		12.60	0.59	0.89	12.20	0.10	0.13	TO
LDKKZN		11.99	-0.02	-0.03	12.00	-0.10	-0.13	TO
LEYQHY		10.86	-1.15	-1.73	10.45	-1.65	-2.13	CE
MRHML3		12.15	0.14	0.22	12.65	0.55	0.71	TO
MVVRFPP		11.09	-0.92	-1.38	11.04	-1.06	-1.37	DA
NA2TFE		12.25	0.24	0.37	12.15	0.05	0.06	TO
PLHJ2L		12.09	0.08	0.12	11.79	-0.32	-0.41	TM
PQYHZA	X	17.55	5.54	8.32	16.30	4.20	5.41	WZ
QDA3CZ	*	13.54	1.53	2.29	14.32	2.21	2.85	DY
QRNG6X		11.81	-0.20	-0.30	11.90	-0.20	-0.26	XX
R8ADRK		11.76	-0.25	-0.38	11.96	-0.15	-0.19	WZ
RLF9L9		11.89	-0.12	-0.18	11.74	-0.36	-0.46	TY
RTETRB		12.68	0.67	1.01	12.83	0.73	0.94	DY
TLDY93		10.95	-1.06	-1.59	11.10	-1.00	-1.29	TO
TQLG7A		12.80	0.79	1.19	12.70	0.60	0.77	TO
TT7A2K		12.28	0.27	0.41	12.30	0.20	0.26	DY
UB9F3R		11.60	-0.41	-0.61	12.30	0.20	0.26	TO





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 750

4th Qtr 2022

### Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

WebCode	Data Flag	Sample X87			Sample X88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
UNBVYV	X	4.95	-7.06	-10.59	5.05	-7.05	-9.08	CE
VNDT24		12.16	0.15	0.22	12.83	0.73	0.94	GO
W8F9RU		11.63	-0.38	-0.57	11.52	-0.58	-0.75	TO
X74TXT		11.48	-0.53	-0.80	11.45	-0.65	-0.84	TO
X8FFLY	X	12.01	0.00	0.00	13.49	1.39	1.79	TO
X8WUP3		11.95	-0.06	-0.09	12.25	0.15	0.19	CE
X9B4UW		11.33	-0.68	-1.02	11.51	-0.60	-0.77	DY
XK6JJX		11.51	-0.50	-0.75	11.25	-0.85	-1.10	GO
XVKEUQ		11.44	-0.57	-0.85	11.35	-0.75	-0.97	TO
YBYVPZ	X	11.40	-0.61	-0.91	14.00	1.90	2.44	TY
YKJ7W7		12.15	0.14	0.22	11.70	-0.40	-0.52	DY
ZC4YFT		11.66	-0.35	-0.53	11.53	-0.57	-0.73	TO
ZXLERT		11.95	-0.06	-0.09	12.00	-0.10	-0.13	CE

#### Summary Statistics

	Sample X87	Sample X88
<b>Grand Means</b>	12.007 grams/10 mins	12.102 grams/10 mins
<b>Std Dev Btwn Labs</b>	0.667 grams/10 mins	0.776 grams/10 mins

Statistics based on 77 of 83 reporting participants

Sample X87: PP & Sample X88: PP

#### Comments on Assigned Data Flags for Test #750

- YBYVPZ (X) - Inconsistent in testing between samples.
- PQYHZA (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample X87.
- X8FFLY (X) - Inconsistent in testing between samples.
- 8ACFAM (X) - Data for both samples are low.
- GZL7LA (X) - Data for sample X88 are high.
- UNBVYV (X) - Data for both samples are low.



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 750**

**4th Qtr 2022**

**Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins**

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample X87 <i>PP</i>			Sample X88 <i>PP</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Procedure A of ASTM D1238	12.074	0.639	0.07	12.166	0.732	0.06	44/48
Procedure B of ASTM D1238	11.649	0.755	-0.36	11.724	0.944	-0.38	12/12
Procedure A of ISO 1133	12.003	0.635	0.00	12.101	0.614	0.00	14/16
Procedure B of ISO 1133	12.269	0.705	0.26	12.424	1.051	0.32	6/6

**Key to Instrument Codes Reported by Participants**

AT Atlas	CE Ceast
DA Davenport	DY Dynisco
GO Gottfert	KA Kayeness
QT Qualitest	RR Ray Ran
TM TMI	TO Tinius Olsen
TY Toyoseiki Seisakusho	WZ Zwick
XX Instrument manufacturer not specified by lab	



# Plastics Interlaboratory Testing Program

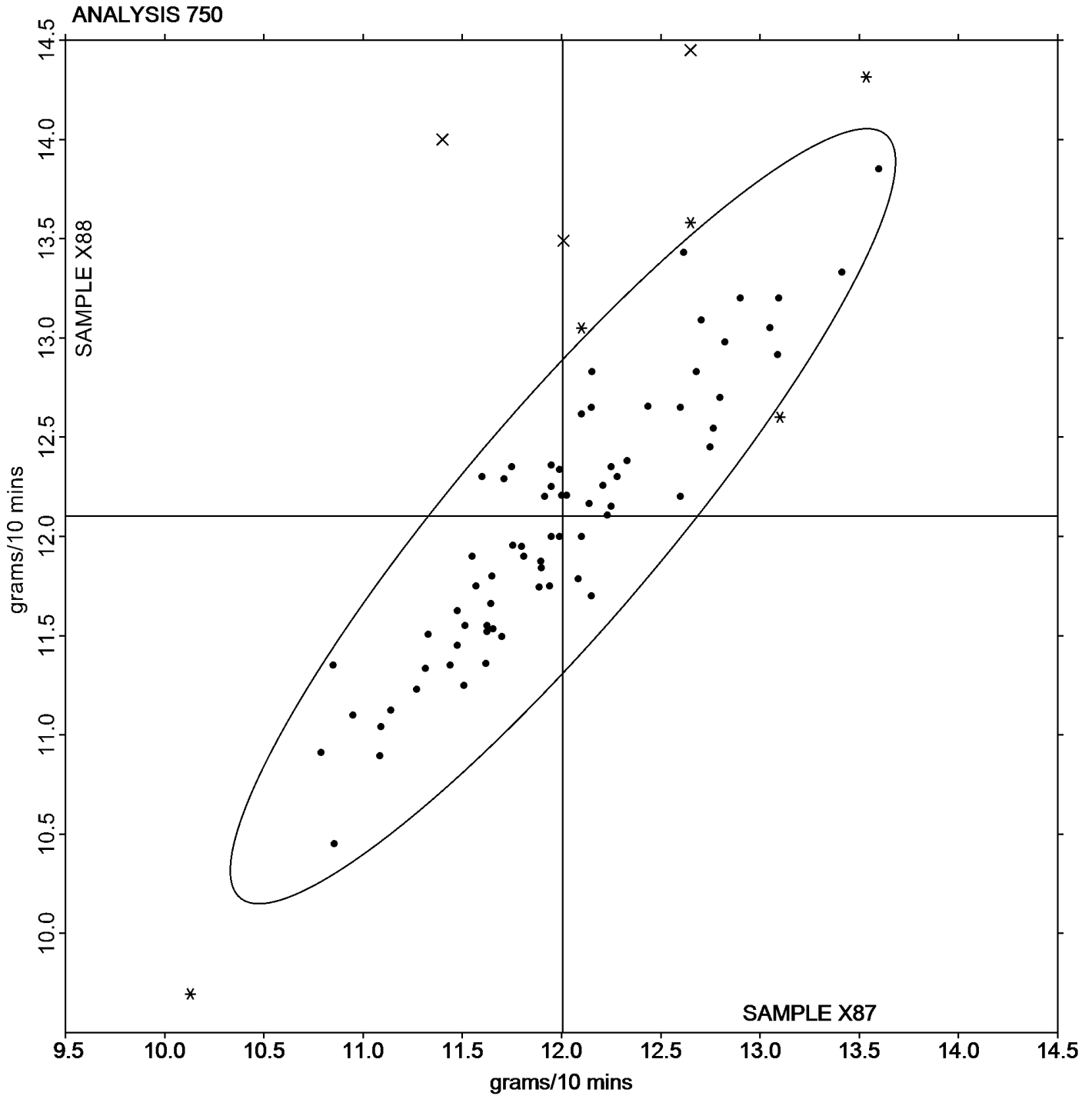
## Analysis 750

Flow Rates of Thermoplastics (190 or 230C/2.16 kg) - g/10 mins

Report #124

4th Qtr 2022

Grand Mean Sample X87: 12.007 grams/10 mins    Grand Mean Sample X88: 12.102 grams/10 mins





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 755

4th Qtr 2022

### Moisture Content of Plastics

WebCode	Data Flag	Sample Y87			Sample Y88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27MZHZ		0.17290	0.02094	1.09	0.18793	0.03110	1.62	XX
2ENBMX		0.17000	0.01804	0.94	0.17000	0.01317	0.68	MU
2UYRZQ		0.16543	0.01347	0.70	0.16647	0.00963	0.50	MK
2YTWM4		0.15530	0.00334	0.17	0.15810	0.00127	0.07	MK
3FXKFU	X	0.17667	0.02471	1.28	0.24667	0.08983	4.67	MU
3ZK7XW		0.19950	0.04754	2.47	0.20400	0.04717	2.45	XX
3ZZNXW		0.15733	0.00537	0.28	0.16400	0.00717	0.37	AZ
667X3V	X	0.24533	0.09337	4.85	0.25433	0.09750	5.07	AZ
6NGVFZ		0.14800	-0.00396	-0.21	0.15667	-0.00017	-0.01	MU
7AFL8K		0.14500	-0.00696	-0.36	0.14667	-0.01017	-0.53	AZ
7B7MBM		0.12300	-0.02896	-1.51	0.12333	-0.03350	-1.74	AZ
7K2K9N		0.15800	0.00604	0.31	0.16333	0.00650	0.34	AZ
8KR4MU		0.14100	-0.01096	-0.57	0.15700	0.00017	0.01	SB
8LMQXC		0.15267	0.00071	0.04	0.15533	-0.00150	-0.08	BA
CGD4AP		0.15500	0.00304	0.16	0.14467	-0.01217	-0.63	XX
EL2RHR		0.16553	0.01357	0.71	0.17057	0.01373	0.71	CT
EV98QK		0.14300	-0.00896	-0.47	0.15400	-0.00283	-0.15	CT
FCRKHH		0.14557	-0.00639	-0.33	0.15307	-0.00377	-0.20	ML
FKFKL9		0.16400	0.01204	0.63	0.16200	0.00517	0.27	SB
GQPXKK		0.16193	0.00997	0.52	0.16643	0.00960	0.50	MR
H3GUD7		0.16367	0.01171	0.61	0.16133	0.00450	0.23	MU
HB97BK		0.12567	-0.02629	-1.37	0.13467	-0.02217	-1.15	CT
KPHW3H		0.11933	-0.03263	-1.70	0.13367	-0.02317	-1.20	CT
KW4R68		0.15817	0.00621	0.32	0.15980	0.00297	0.15	ML
KXLAJK		0.13800	-0.01396	-0.73	0.14600	-0.01083	-0.56	CT
LEYQHY		0.13400	-0.01796	-0.93	0.13600	-0.02083	-1.08	MU
LXQXTB		0.14580	-0.00616	-0.32	0.14610	-0.01073	-0.56	AZ
PQYHZA	X	0.15300	0.00104	0.05	0.75000	0.59317	30.85	MU
R8ADRK		0.15957	0.00761	0.40	0.16273	0.00590	0.31	BA
RTETRB		0.17443	0.02247	1.17	0.16987	0.01303	0.68	AZ
TLDY93		0.14867	-0.00329	-0.17	0.15767	0.00083	0.04	MU
TPBLFC	*	0.10340	-0.04856	-2.52	0.10640	-0.05043	-2.62	MU
UDWPEE		0.16500	0.01304	0.68	0.17533	0.01850	0.96	MU
WAAWAP		0.18000	0.02804	1.46	0.18633	0.02950	1.53	CS
YBA2GU		0.12300	-0.02896	-1.51	0.12333	-0.03350	-1.74	MU



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 755

4th Qtr 2022

### Moisture Content of Plastics

WebCode	Data Flag	Sample Y87			Sample Y88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
YBUHXW		0.16067	0.00871	0.45	0.16267	0.00583	0.30	MJ
ZC4YFT	*	0.14413	-0.00783	-0.41	0.16690	0.01007	0.52	ML

#### Summary Statistics

	Sample Y87	Sample Y88
<b>Grand Means</b>	0.151961 Percent	0.156834 Percent
<b>Std Dev Btwn Labs</b>	0.019239 Percent	0.019229 Percent
Statistics based on 34 of 37 reporting participants		

Sample Y87: ABS & Sample Y88: ABS

#### Comments on Assigned Data Flags for Test #755

PQYHZA (X) - Extreme data.

667X3V (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample Y87.

3FXKFU (X) - Data for sample Y88 are high. Inconsistent within the determinations of sample Y88.

#### Results by Methodology (as reported by laboratory)

Test Methodology	Sample Y87 ABS			Sample Y88 ABS			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D6869	0.150720	0.016142	-0.0012	0.157777	0.018009	0.0009	10/11
ISO 15512 Method B	0.149947	0.026301	-0.0020	0.151747	0.025598	-0.0051	5/6
ASTM D6980	0.143958	0.016998	-0.0080	0.149445	0.015267	-0.0074	11/12
ASTM D7191	0.165947	0.021531	0.0140	0.167860	0.022110	0.0110	5/5

#### Key to Instrument Codes Reported by Participants

<b>AZ</b> Arizona Instruments Moisture Analyzer	<b>BA</b> Brabender Aquatrac
<b>CS</b> Cosa Instruments	<b>CT</b> Computrac Moisture Analyzer
<b>MJ</b> Mitsubishi KF Analyzer Series	<b>MK</b> Mitsubishi KF Analyzer CA
<b>ML</b> Metrohm Coulometer	<b>MR</b> Metrohm Coulineter 756 KF
<b>MU</b> Mettler Toledo	<b>SB</b> Sartorius Mark 3
<b>XX</b> Instrument manufacturer not specified by lab	



# Plastics Interlaboratory Testing Program

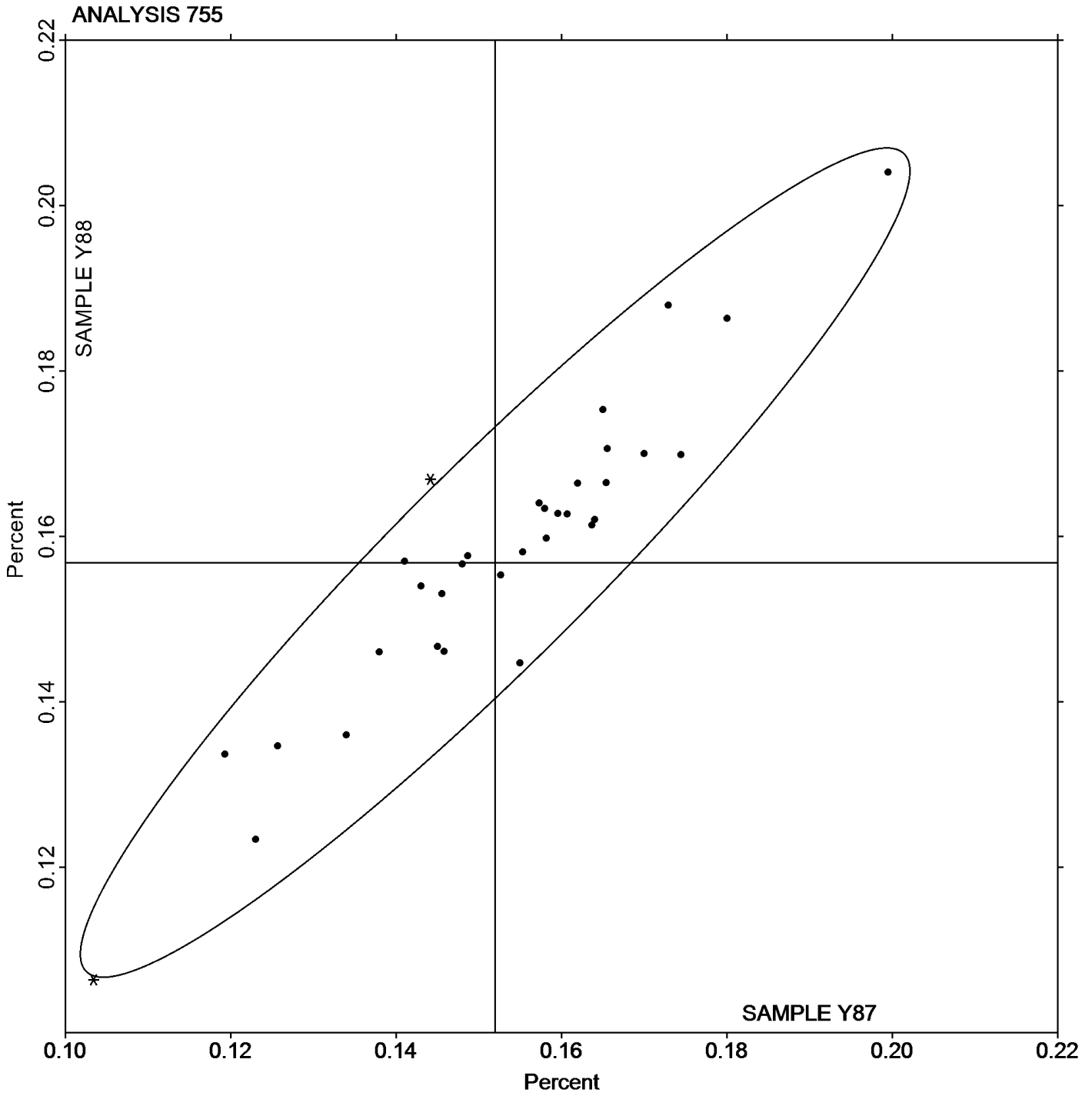
## Analysis 755

### Moisture Content of Plastics

Report #124

4th Qtr 2022

Grand Mean Sample Y87: 0.15196 Percent    Grand Mean Sample Y88: 0.15683 Percent





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 757

4th Qtr 2022

### Ash Content in Thermoplastics - Percent

WebCode	Data Flag	Sample L87			Sample L88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
26TCZ6	*	29.350	-0.313	-2.70	29.445	-0.232	-2.59
27MZHZ		29.670	0.007	0.06	29.660	-0.017	-0.19
2ENBMX		29.850	0.187	1.61	29.800	0.123	1.37
2UYRZQ		29.615	-0.048	-0.41	29.670	-0.007	-0.08
3RQ26V		29.760	0.097	0.84	29.650	-0.027	-0.30
3ZK7XW		29.565	-0.098	-0.85	29.690	0.013	0.14
3ZZNXW		29.725	0.062	0.54	29.755	0.078	0.87
4Y7ZE2		29.660	-0.003	-0.03	29.680	0.003	0.03
6232KN	X	28.780	-0.883	-7.63	28.750	-0.927	-10.36
6NGVFZ		29.800	0.137	1.18	29.865	0.188	2.10
6TAZ94		29.655	-0.008	-0.07	29.690	0.013	0.14
6ZVU9M		29.635	-0.028	-0.24	29.696	0.018	0.21
74W47V		29.662	-0.002	-0.01	29.542	-0.136	-1.52
7B7MBM		29.490	-0.173	-1.49	29.765	0.088	0.98
7K2K9N	*	29.430	-0.233	-2.01	29.770	0.093	1.04
8KR4MU		29.811	0.148	1.28	29.694	0.017	0.19
9QAZKF		29.605	-0.058	-0.50	29.680	0.003	0.03
AEEDNJ		29.755	0.092	0.79	29.700	0.023	0.26
B6ACDK		29.565	-0.098	-0.85	29.705	0.028	0.31
CGD4AP	*	29.415	-0.248	-2.14	29.445	-0.232	-2.59
CP8CUF		29.645	-0.018	-0.16	29.555	-0.122	-1.36
ED8HC3		29.710	0.047	0.41	29.735	0.058	0.65
EK9UAK		29.608	-0.056	-0.48	29.642	-0.035	-0.39
F6PBA6	X	29.100	-0.563	-4.86	29.950	0.273	3.05
GLBE96		29.730	0.067	0.58	29.775	0.098	1.09
HB97BK	X	31.070	1.407	12.16	29.647	-0.030	-0.33
JMFLQN		29.740	0.077	0.66	29.690	0.013	0.14
JQHJZV	*	29.385	-0.278	-2.40	29.640	-0.037	-0.41
K8LD7V		29.710	0.047	0.41	29.665	-0.012	-0.13
KB27WN		29.725	0.062	0.54	29.715	0.038	0.42
KPHW3H	X	30.215	0.552	4.77	31.045	1.368	15.29
KXLAJK		29.610	-0.053	-0.46	29.470	-0.207	-2.31
L6QAUZ		29.770	0.107	0.92	29.765	0.088	0.98
LEYQHY		29.630	-0.033	-0.29	29.690	0.013	0.14
MDY4KL		29.550	-0.113	-0.98	29.575	-0.102	-1.14



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 757**

**4th Qtr 2022**

**Ash Content in Thermoplastics - Percent**

WebCode	Data Flag	<u>Sample L87</u>			<u>Sample L88</u>		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MRHML3		29.720	0.057	0.49	29.720	0.043	0.48
N2LBME		29.580	-0.083	-0.72	29.609	-0.069	-0.77
NA2TFE		29.715	0.052	0.45	29.680	0.003	0.03
PDQ4DG		29.725	0.062	0.54	29.720	0.043	0.48
PQYHZA		29.680	0.017	0.15	29.690	0.013	0.14
QFUZFW		29.760	0.097	0.84	29.730	0.053	0.59
R8ADRK		29.775	0.112	0.97	29.620	-0.057	-0.64
TLDY93		29.745	0.082	0.71	29.590	-0.087	-0.97
TPBLFC		29.684	0.021	0.18	29.656	-0.021	-0.24
VNDT24		29.775	0.112	0.97	29.750	0.073	0.82
XK6JJX		29.660	-0.003	-0.03	29.655	-0.022	-0.25
Z4AULR		29.720	0.057	0.49	29.774	0.096	1.08
ZC4YFT		29.805	0.142	1.23	29.780	0.103	1.15

**Summary Statistics**

	<u>Sample L87</u>	<u>Sample L88</u>
<b>Grand Means</b>	29.6630 Percent	29.6771 Percent
<b>Stnd Dev Btwn Labs</b>	0.1158 Percent	0.0895 Percent

Statistics based on 44 of 48 reporting participants

Sample L87: PBT & Sample L88: PBT

**Comments on Assigned Data Flags for Test #757**

- HB97BK (X) - Data for sample L87 are high. Inconsistent within the determinations of both samples.
- KPHW3H (X) - Data for both samples are high. Inconsistent within the determinations of sample L87.
- F6PBA6 (X) - Data for sample L87 are low and data for sample L88 are high. Inconsistent within the determinations of both samples.
- 6232KN (X) - Data for both samples are low. Inconsistent within the determinations of sample L88.





# Plastics Interlaboratory Testing Program

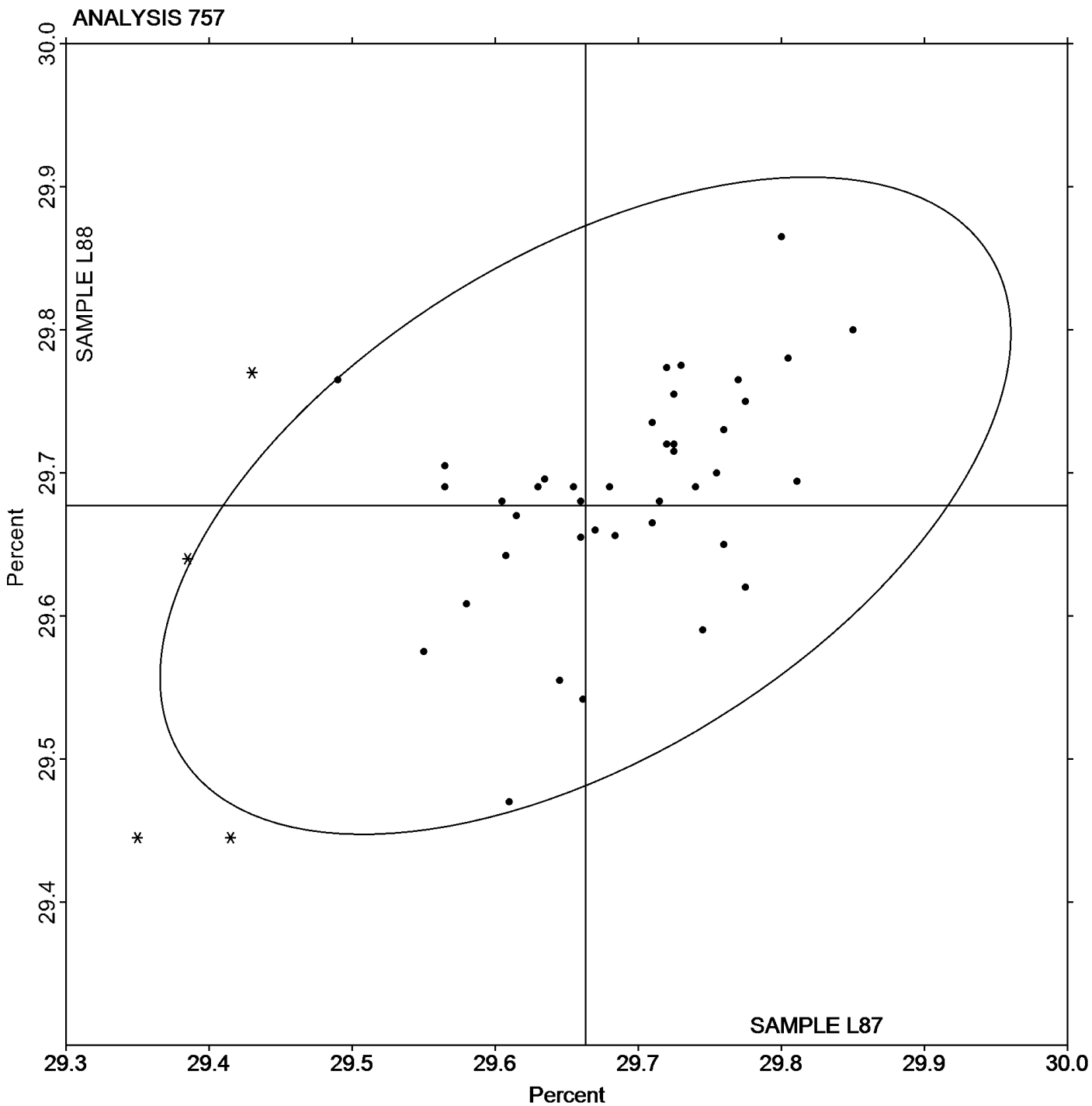
Report #124

## Analysis 757

4th Qtr 2022

### Ash Content in Thermoplastics - Percent

Grand Mean Sample L87: 29.663 Percent    Grand Mean Sample L88: 29.677 Percent





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 758

4th Qtr 2022

### Thermogravimetric Analysis

WebCode	Data Flag	Sample A87			Sample A88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2ENBMX		79.48	0.20	0.36	79.22	-0.21	-0.35	TA
2WHAE4		78.82	-0.46	-0.80	79.23	-0.20	-0.34	TA
3ZK7XW		79.75	0.47	0.84	79.72	0.29	0.49	XX
44EGEN	X	83.77	4.49	7.93	85.18	5.75	9.68	TA
667X3V		79.05	-0.23	-0.41	79.14	-0.29	-0.48	TA
6NGVFZ		79.48	0.20	0.35	79.50	0.07	0.11	TA
7K2K9N		79.90	0.62	1.10	79.37	-0.06	-0.10	TA
ED8HC3		78.58	-0.70	-1.24	78.28	-1.15	-1.93	PE
F7PCDB		79.35	0.07	0.12	79.15	-0.27	-0.46	XX
JLPBXA		78.91	-0.37	-0.64	78.65	-0.78	-1.31	TA
JMFLQN		78.77	-0.51	-0.89	79.01	-0.42	-0.71	TA
K8LD7V		80.29	1.01	1.79	79.44	0.01	0.02	TA
KVMRPY		80.18	0.90	1.59	80.18	0.75	1.27	TA
KZYNLL		78.34	-0.94	-1.66	79.05	-0.38	-0.64	TA
MTDCLP		79.06	-0.21	-0.38	80.50	1.07	1.81	PE
WMTUYQ		78.66	-0.62	-1.09	79.34	-0.09	-0.15	TA
X9B4UW		79.60	0.32	0.57	80.30	0.87	1.47	TA
ZC4YFT		79.50	0.22	0.39	80.20	0.77	1.29	TA

Summary Statistics		
	Sample A87	Sample A88
<b>Grand Means</b>	79.276 Percent	79.427 Percent
<b>Std Dev Btwn Labs</b>	0.567 Percent	0.595 Percent
Statistics based on 17 of 18 reporting participants		

Sample A87: PP & Sample A88: PP

#### Comments on Assigned Data Flags for Test #758

44EGEN (X) - Data for both samples are high. Inconsistent within the determinations of sample A88.

#### Results by Methodology (as reported by laboratory)

Test Methodology	Sample A87			Sample A88			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
ASTM D3850	79.199	0.721	-0.08	79.325	0.745	-0.10	8/9
ISO 11358	79.285	0.453	0.01	79.541	0.490	0.11	7/7



**Plastics Interlaboratory Testing Program**  
**Analysis 758**  
**Thermogravimetric Analysis**

**Report #124**  
**4th Qtr 2022**

**Key to Instrument Codes Reported by Participants**

PE Perkins Elmer Instruments  
XX Instrument manufacturer not specified by lab  
TA TA Instruments



# Plastics Interlaboratory Testing Program

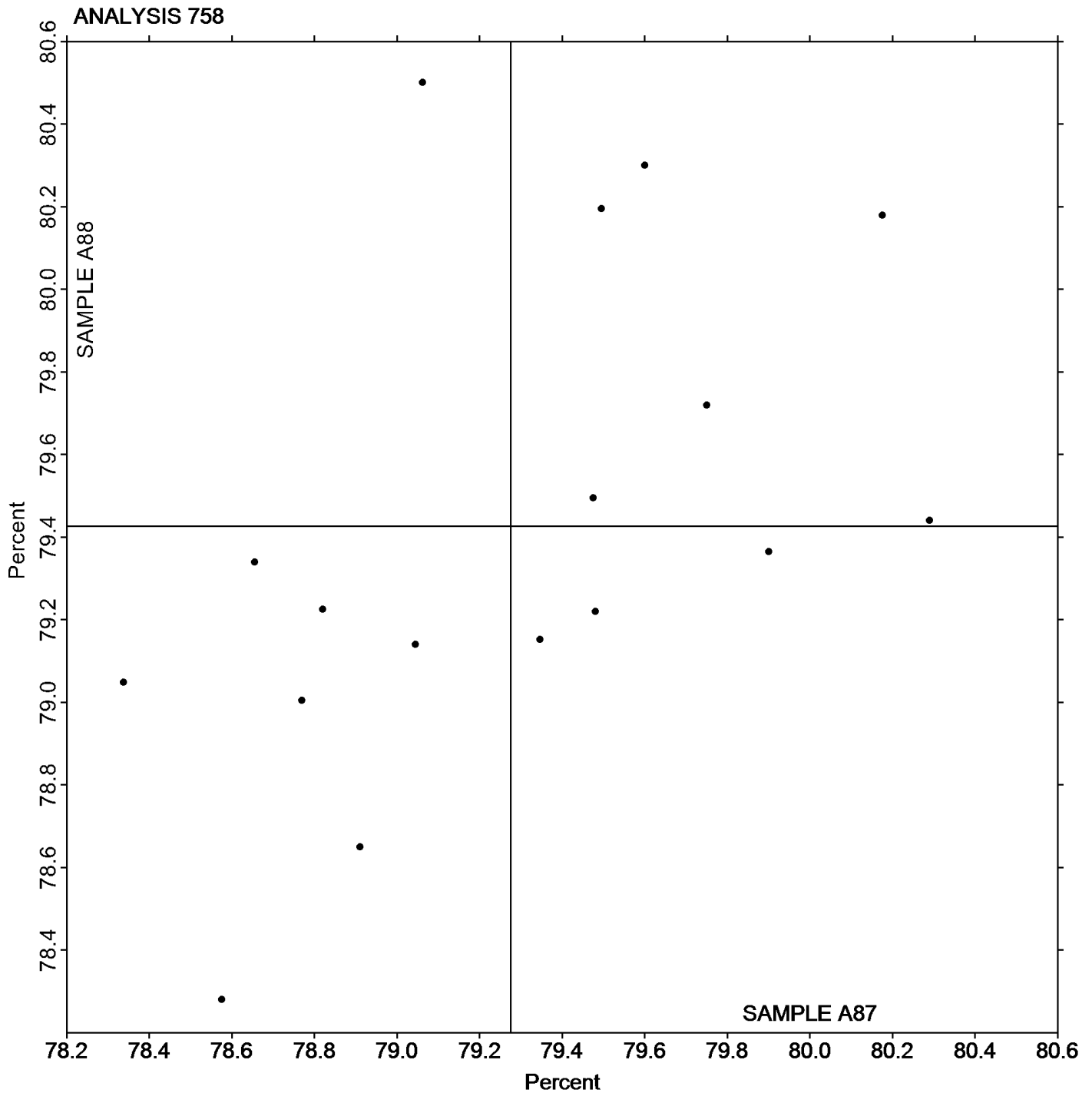
## Analysis 758

### Thermogravimetric Analysis

Report #124

4th Qtr 2022

Grand Mean Sample A87: 79.276 Percent    Grand Mean Sample A88: 79.427 Percent



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 760

4th Qtr 2022

### DSC Crystallization Temperature

WebCode	Data Flag	Sample W87			Sample W88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2YTWM4		170.88	-3.01	-0.58	171.37	-2.45	-0.49	TA
3ZK7XW		168.04	-5.85	-1.12	168.52	-5.30	-1.06	XX
44EGEN		167.51	-6.38	-1.22	168.71	-5.12	-1.02	TA
4MR3CH		180.83	6.95	1.33	181.10	7.28	1.46	TA
6232KN	*	171.27	-2.62	-0.50	172.71	-1.11	-0.22	PE
74W47V		179.22	5.33	1.02	179.18	5.35	1.07	TA
76MEXN		167.00	-6.89	-1.32	166.94	-6.89	-1.38	TA
7K2K9N		171.62	-2.27	-0.44	171.42	-2.41	-0.48	TA
CGD4AP		175.97	2.08	0.40	175.27	1.44	0.29	NZ
CP8CUF		170.14	-3.74	-0.72	170.02	-3.80	-0.76	TA
D8T2WN		169.25	-4.63	-0.89	169.23	-4.59	-0.92	PE
ED8HC3		169.83	-4.05	-0.78	169.30	-4.52	-0.91	TA
F7PCDB		179.37	5.48	1.05	179.22	5.40	1.08	XX
FY6979		178.00	4.11	0.79	177.87	4.05	0.81	MT
JCYDYG		169.77	-4.12	-0.79	169.25	-4.58	-0.92	TA
JLPBXA		170.30	-3.59	-0.69	170.07	-3.76	-0.75	TA
JMFLQN		172.00	-1.89	-0.36	171.97	-1.85	-0.37	TA
K8LD7V		173.03	-0.85	-0.16	172.55	-1.27	-0.25	TA
KB27WN		170.73	-3.15	-0.60	171.27	-2.56	-0.51	TA
KVMRPY		186.70	12.81	2.46	185.65	11.82	2.37	TA
KZYNLL		174.86	0.98	0.19	175.63	1.81	0.36	TA
LEYQHY		179.81	5.92	1.14	179.32	5.49	1.10	MT
MVVRFPP		170.54	-3.35	-0.64	170.20	-3.63	-0.73	TA
QDA3CZ		181.87	7.98	1.53	180.93	7.11	1.42	TA
R6RVA2		175.88	2.00	0.38	175.79	1.97	0.39	TA
TPBLFC		179.63	5.74	1.10	178.97	5.15	1.03	TA
TT7A2K		168.16	-5.73	-1.10	167.90	-5.93	-1.19	TA
WMTUYQ		170.30	-3.59	-0.69	171.03	-2.79	-0.56	TA
X9B4UW		178.17	4.28	0.82	177.47	3.64	0.73	TA
XE2BHW		169.00	-4.88	-0.94	168.63	-5.19	-1.04	TA
YBYVPZ		180.77	6.88	1.32	181.06	7.24	1.45	SH



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 760

4th Qtr 2022

### DSC Crystallization Temperature

#### Summary Statistics

##### Sample W87

##### Sample W88

**Grand Means**

173.885 Degrees Celsius

173.824 Degrees Celsius

**Stnd Dev Btwn Labs**

5.211 Degrees Celsius

4.998 Degrees Celsius

Statistics based on 31 of 31 reporting participants

Sample W87: PBT & Sample W88: PBT

#### Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

NZ Netzsch Instruments

PE Perkins Elmer Instruments

SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

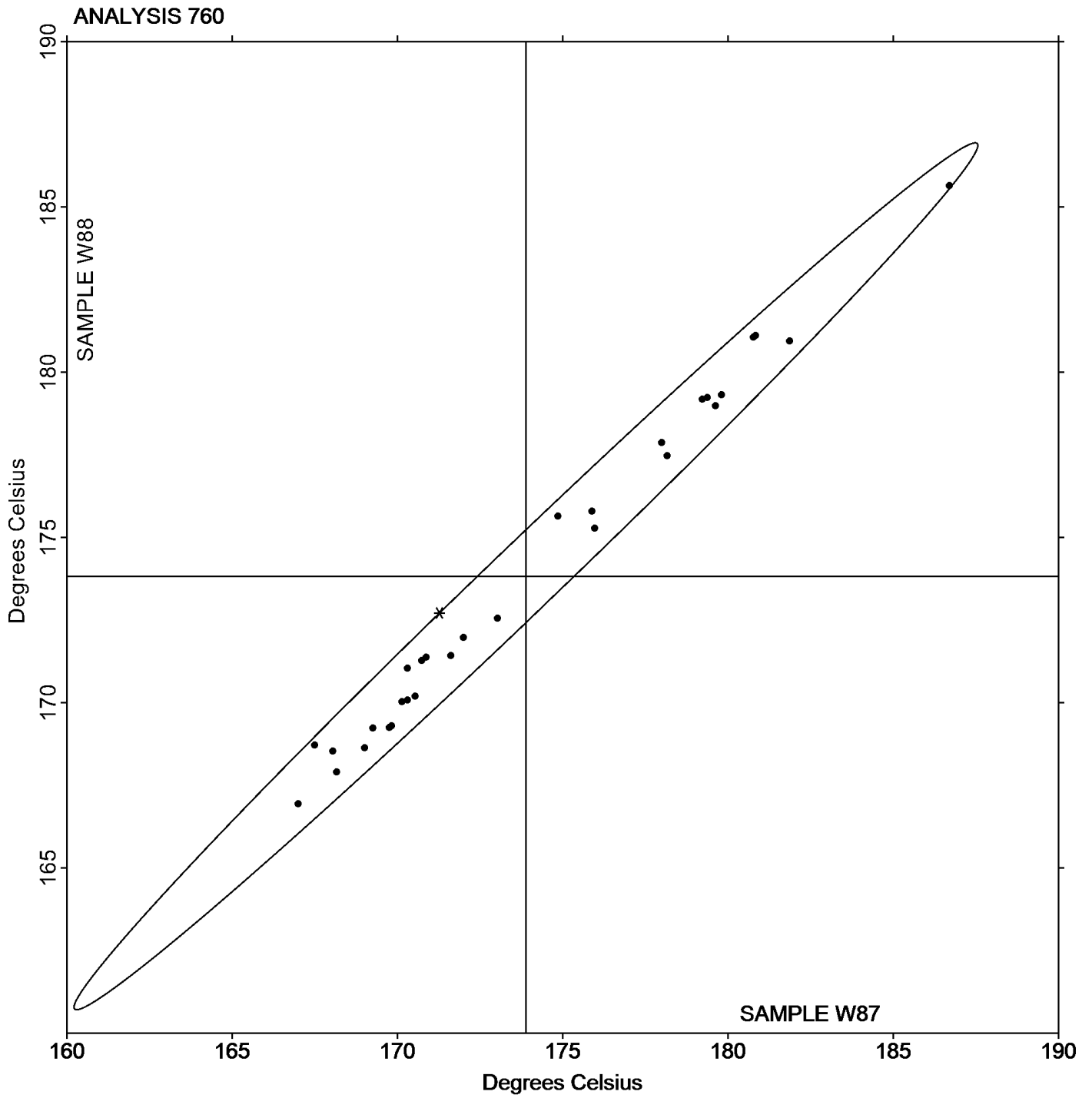
## Analysis 760

### DSC Crystallization Temperature

Report #124

4th Qtr 2022

Grand Mean Sample W87: 173.89 Degrees Celsius    Grand Mean Sample W88: 173.82 Degrees Celsius





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 761

4th Qtr 2022

### DSC Melt Temperature

WebCode	Data Flag	Sample W87			Sample W88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2YTWM4		223.78	0.47	0.45	223.11	-0.06	-0.06	TA
3ZK7XW		223.98	0.67	0.64	223.59	0.43	0.43	XX
44EGEN		223.95	0.64	0.62	223.01	-0.16	-0.16	TA
4MR3CH		221.17	-2.14	-2.05	221.27	-1.90	-1.91	TA
4XQX8R	*	223.50	0.19	0.18	222.35	-0.82	-0.82	TA
6232KN		224.89	1.58	1.51	224.12	0.95	0.95	PE
74W47V		224.91	1.60	1.53	225.09	1.93	1.94	XX
76MEXN		223.36	0.05	0.05	223.38	0.22	0.22	TA
7E7X8M		222.07	-1.24	-1.19	221.97	-1.20	-1.21	NZ
7K2K9N		224.53	1.22	1.17	224.34	1.17	1.18	TA
8LMQXC		221.27	-2.04	-1.96	221.40	-1.77	-1.77	TA
CGD4AP		223.53	0.23	0.22	223.57	0.40	0.40	NZ
CP8CUF		224.17	0.86	0.83	224.12	0.96	0.96	XX
D8T2WN		223.78	0.47	0.45	223.59	0.43	0.43	PE
ED8HC3		222.93	-0.37	-0.36	222.87	-0.30	-0.30	TA
F7PCDB		223.63	0.33	0.31	223.70	0.54	0.54	XX
FY6979		223.03	-0.27	-0.26	222.80	-0.36	-0.36	MT
JCYYDG		225.00	1.69	1.62	224.99	1.83	1.84	TA
JLPBXA		222.90	-0.41	-0.39	222.87	-0.30	-0.30	TA
JMFLQN		222.35	-0.95	-0.92	222.07	-1.09	-1.10	TA
K8LD7V		222.74	-0.56	-0.54	222.85	-0.32	-0.32	TA
KB27WN		222.77	-0.54	-0.52	222.23	-0.93	-0.94	TA
KVMRPY		223.70	0.39	0.38	223.60	0.43	0.44	TA
KZYNLL		221.67	-1.63	-1.57	221.41	-1.76	-1.76	XX
LEYQHY		224.06	0.75	0.72	223.73	0.56	0.56	MT
MVVRFPP		224.02	0.72	0.69	224.13	0.97	0.97	TA
QDA3CZ		225.03	1.73	1.66	225.07	1.90	1.91	TA
R6RVA2		222.87	-0.44	-0.42	223.26	0.09	0.09	TA
TPBLFC		222.03	-1.27	-1.22	222.54	-0.62	-0.63	TA
TT7A2K		224.40	1.09	1.05	223.74	0.57	0.57	TA
UNBVYV	X	231.33	8.03	7.70	231.37	8.20	8.24	NZ
WMTUYQ		222.17	-1.14	-1.09	222.07	-1.10	-1.10	TA
X9B4UW		222.90	-0.41	-0.39	222.83	-0.33	-0.33	TA
XE2BHW		223.72	0.42	0.40	223.87	0.70	0.71	TA
YBYVPZ		222.16	-1.15	-1.10	222.56	-0.60	-0.61	SH





**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 761**

**4th Qtr 2022**

**DSC Melt Temperature**

WebCode	Data Flag	Sample W87			Sample W88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Z4AULR		222.80	-0.50	-0.48	222.72	-0.45	-0.45	TA

Summary Statistics			
	Sample W87		Sample W88
<b>Grand Means</b>	223.308 Degrees Celsius		223.166 Degrees Celsius
<b>Stnd Dev Btwn Labs</b>	1.042 Degrees Celsius		0.995 Degrees Celsius
Statistics based on 35 of 36 reporting participants			

Sample W87: PBT & Sample W88: PBT

**Comments on Assigned Data Flags for Test #761**

UNBYYV (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample W87.

**Key to Instrument Codes Reported by Participants**

MT	Mettler Toledo Instruments	NZ	Netzsch Instruments
PE	Perkins Elmer Instruments	SH	Shimadzu
TA	TA Instruments	XX	Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

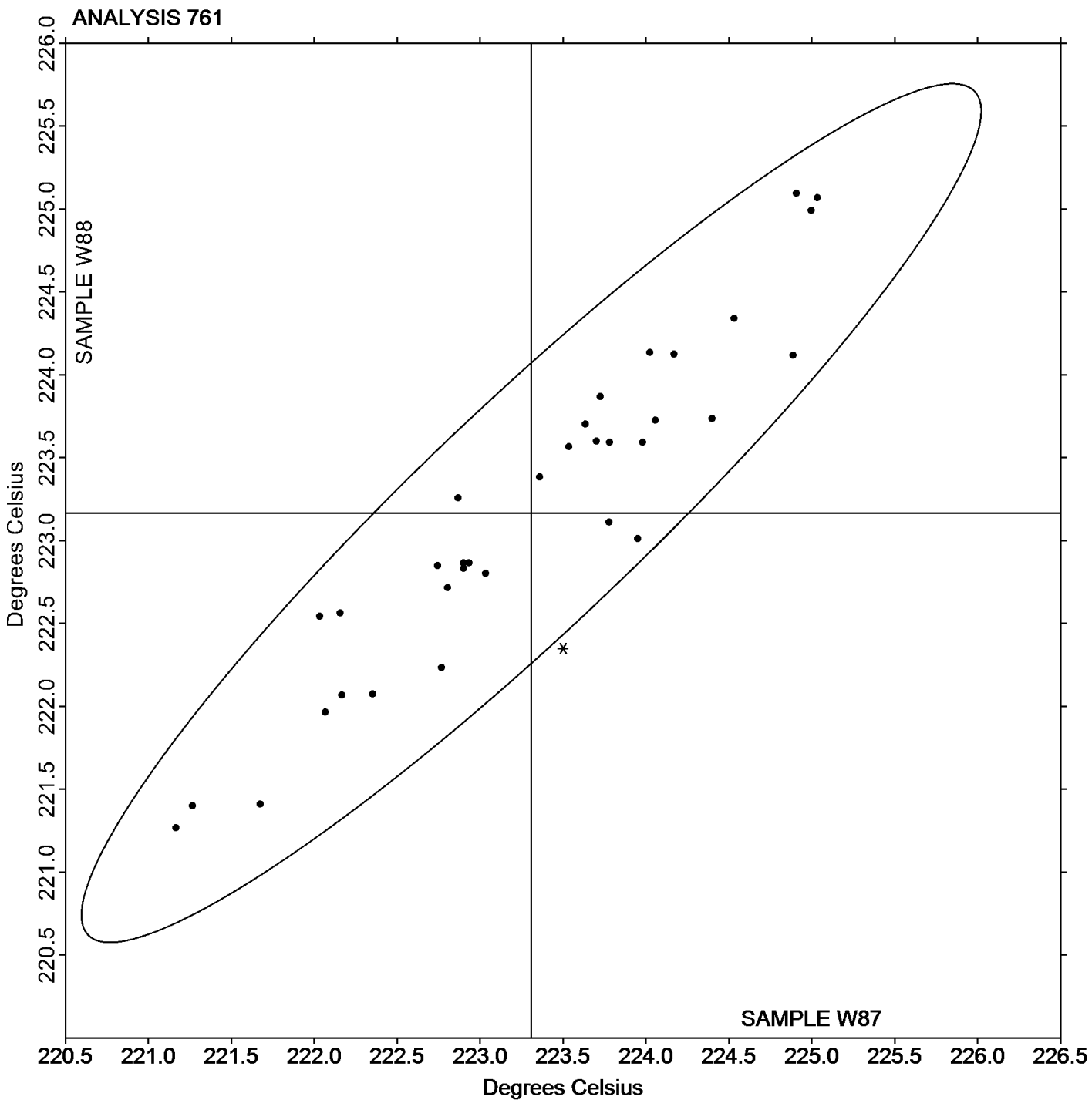
Analysis 761

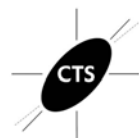
DSC Melt Temperature

Report #124

4th Qtr 2022

Grand Mean Sample W87: 223.31 Degrees Celsius    Grand Mean Sample W88: 223.17 Degrees Celsius





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 762

4th Qtr 2022

### DSC Enthalpy of Crystallization

WebCode	Data Flag	Sample W87			Sample W88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2YTWM4		43.13	-5.63	-1.23	45.26	-3.57	-0.75	TA
3ZK7XW		46.14	-2.62	-0.57	46.56	-2.27	-0.47	XX
44EGEN		49.55	0.79	0.17	49.88	1.05	0.22	TA
4MR3CH		52.58	3.82	0.83	53.51	4.68	0.98	TA
6232KN		48.20	-0.56	-0.12	46.21	-2.62	-0.55	PE
76MEXN		48.14	-0.62	-0.14	49.13	0.30	0.06	TA
7K2K9N		45.01	-3.75	-0.82	44.88	-3.95	-0.83	TA
CGD4AP		46.50	-2.26	-0.49	47.86	-0.97	-0.20	NZ
D8T2WN		42.08	-6.68	-1.46	42.40	-6.43	-1.35	PE
ED8HC3		45.81	-2.95	-0.64	44.99	-3.84	-0.80	TA
F7PCDB		53.38	4.62	1.01	52.91	4.08	0.85	XX
FY6979		50.10	1.34	0.29	48.46	-0.37	-0.08	MT
JCYYDG		46.26	-2.50	-0.55	47.12	-1.71	-0.36	TA
JLPBXA		45.49	-3.27	-0.71	45.59	-3.24	-0.68	TA
JMFLQN	*	53.00	4.24	0.93	58.61	9.78	2.05	TA
K8LD7V		44.21	-4.55	-0.99	43.94	-4.89	-1.03	TA
KB27WN		46.05	-2.71	-0.59	47.51	-1.32	-0.28	TA
KVMRPY	*	61.17	12.41	2.71	58.80	9.97	2.09	TA
KZYNLL		49.53	0.77	0.17	48.72	-0.11	-0.02	XX
LEYQHY		50.29	1.53	0.33	52.49	3.66	0.77	MT
MVVRFPP		55.98	7.22	1.58	57.02	8.19	1.72	XX
QDA3CZ		51.90	3.14	0.69	50.07	1.24	0.26	TA
R6RVA2		46.83	-1.93	-0.42	47.40	-1.43	-0.30	TA
TPBLFC		52.17	3.41	0.74	50.58	1.75	0.37	TA
TT7A2K	*	46.71	-2.05	-0.45	41.56	-7.27	-1.52	TA
WMTUYQ		46.41	-2.35	-0.51	46.89	-1.94	-0.41	TA
X9B4UW		56.63	7.87	1.72	56.70	7.87	1.65	TA
XE2BHW		50.20	1.44	0.31	49.89	1.06	0.22	TA
YBYVPZ		40.58	-8.18	-1.78	41.09	-7.74	-1.62	SH



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 762

4th Qtr 2022

### DSC Enthalpy of Crystallization

#### Summary Statistics

	<u>Sample W87</u>	<u>Sample W88</u>
<b>Grand Means</b>	48.760 Joules Per Gram	48.830 Joules Per Gram
<b>Std Dev Btwn Labs</b>	4.583 Joules Per Gram	4.773 Joules Per Gram

Statistics based on 29 of 29 reporting participants

Sample W87: PBT & Sample W88: PBT

#### Key to Instrument Codes Reported by Participants

MT	Mettler Toledo Instruments	NZ	Netzsch Instruments
PE	Perkins Elmer Instruments	SH	Shimadzu
TA	TA Instruments	XX	Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

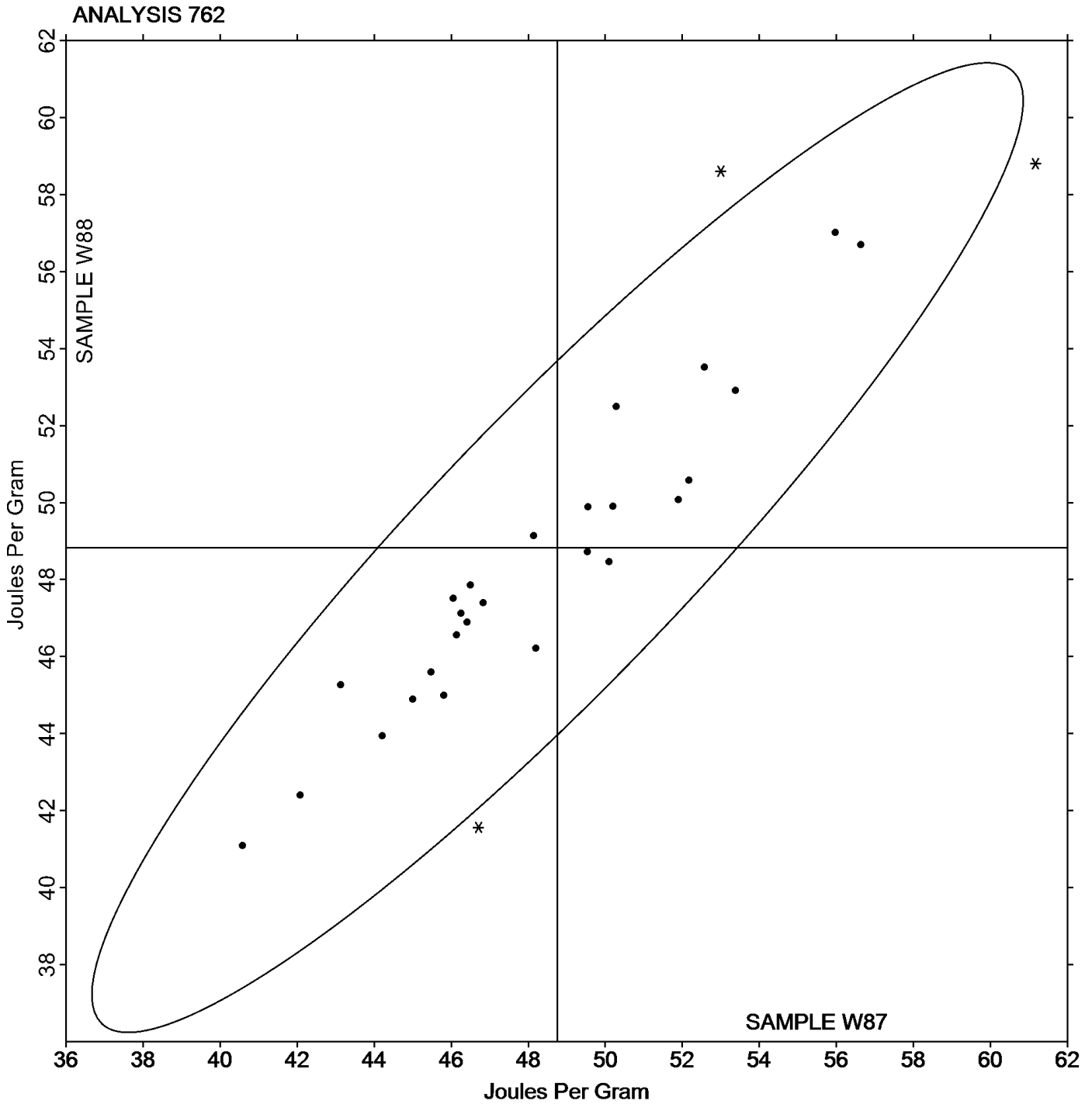
Analysis 762

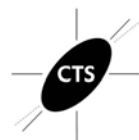
DSC Enthalpy of Crystallization

Report #124

4th Qtr 2022

Grand Mean Sample W87: 48.760 Joules Per Gram    Grand Mean Sample W88: 48.830 Joules Per Gram





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 763

4th Qtr 2022

### DSC Enthalpy of Fusion

WebCode	Data Flag	Sample W87			Sample W88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2YTWM4		35.13	-7.63	-1.28	36.52	-6.09	-1.02	TA
3ZK7XW		37.30	-5.47	-0.92	37.14	-5.47	-0.91	XX
44EGEN		50.87	8.11	1.37	50.68	8.07	1.35	TA
4MR3CH		55.80	13.04	2.20	56.50	13.89	2.32	TA
6232KN		48.20	5.44	0.92	46.20	3.59	0.60	PE
76MEXN		37.88	-4.88	-0.82	38.82	-3.79	-0.63	TA
7E7X8M		40.79	-1.97	-0.33	40.01	-2.60	-0.43	NZ
7K2K9N		38.43	-4.34	-0.73	39.02	-3.59	-0.60	TA
CGD4AP		40.43	-2.34	-0.39	40.29	-2.32	-0.39	NZ
D8T2WN		40.46	-2.31	-0.39	39.50	-3.11	-0.52	PE
ED8HC3		39.53	-3.23	-0.54	38.98	-3.63	-0.61	TA
F7PCDB		39.85	-2.92	-0.49	40.04	-2.57	-0.43	XX
FY6979		42.89	0.13	0.02	41.59	-1.02	-0.17	MT
JCYYDG		37.57	-5.19	-0.87	38.04	-4.57	-0.76	TA
JLPBXA		41.66	-1.11	-0.19	39.95	-2.66	-0.44	TA
JMFLQN		41.30	-1.47	-0.25	40.63	-1.98	-0.33	XX
K8LD7V		42.76	-0.01	0.00	41.75	-0.86	-0.14	TA
KB27WN		38.55	-4.22	-0.71	39.20	-3.41	-0.57	TA
KVMRPY	X	58.87	16.10	2.71	63.33	20.72	3.46	TA
KZYNLL		39.14	-3.62	-0.61	39.27	-3.34	-0.56	XX
LEYQHY	*	48.15	5.39	0.91	51.13	8.52	1.42	MT
MVVFRP		49.93	7.17	1.21	50.27	7.66	1.28	TA
QDA3CZ		41.40	-1.36	-0.23	40.60	-2.01	-0.34	TA
R6RVA2		47.68	4.91	0.83	46.40	3.79	0.63	TA
TPBLFC		52.60	9.84	1.66	50.23	7.62	1.27	TA
TT7A2K		37.92	-4.84	-0.82	36.32	-6.29	-1.05	TA
WMTUYQ		41.20	-1.56	-0.26	42.58	-0.03	0.00	TA
X9B4UW		54.90	12.14	2.04	55.17	12.56	2.10	TA
XE2BHW		45.61	2.85	0.48	47.04	4.43	0.74	TA
YBYVPZ		32.17	-10.59	-1.78	31.80	-10.81	-1.80	SH



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 763

4th Qtr 2022

### DSC Enthalpy of Fusion

#### Summary Statistics

##### Sample W87

##### Sample W88

**Grand Means**

42.762 Joules Per Gram

42.609 Joules Per Gram

**Stnd Dev Btwn Labs**

5.939 Joules Per Gram

5.990 Joules Per Gram

Statistics based on 29 of 30 reporting participants

Sample W87: PBT & Sample W88: PBT

#### **Comments on Assigned Data Flags for Test #763**

KVMRPY (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

#### **Key to Instrument Codes Reported by Participants**

MT Mettler Toledo Instruments

NZ Netzsch Instruments

PE Perkins Elmer Instruments

SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab



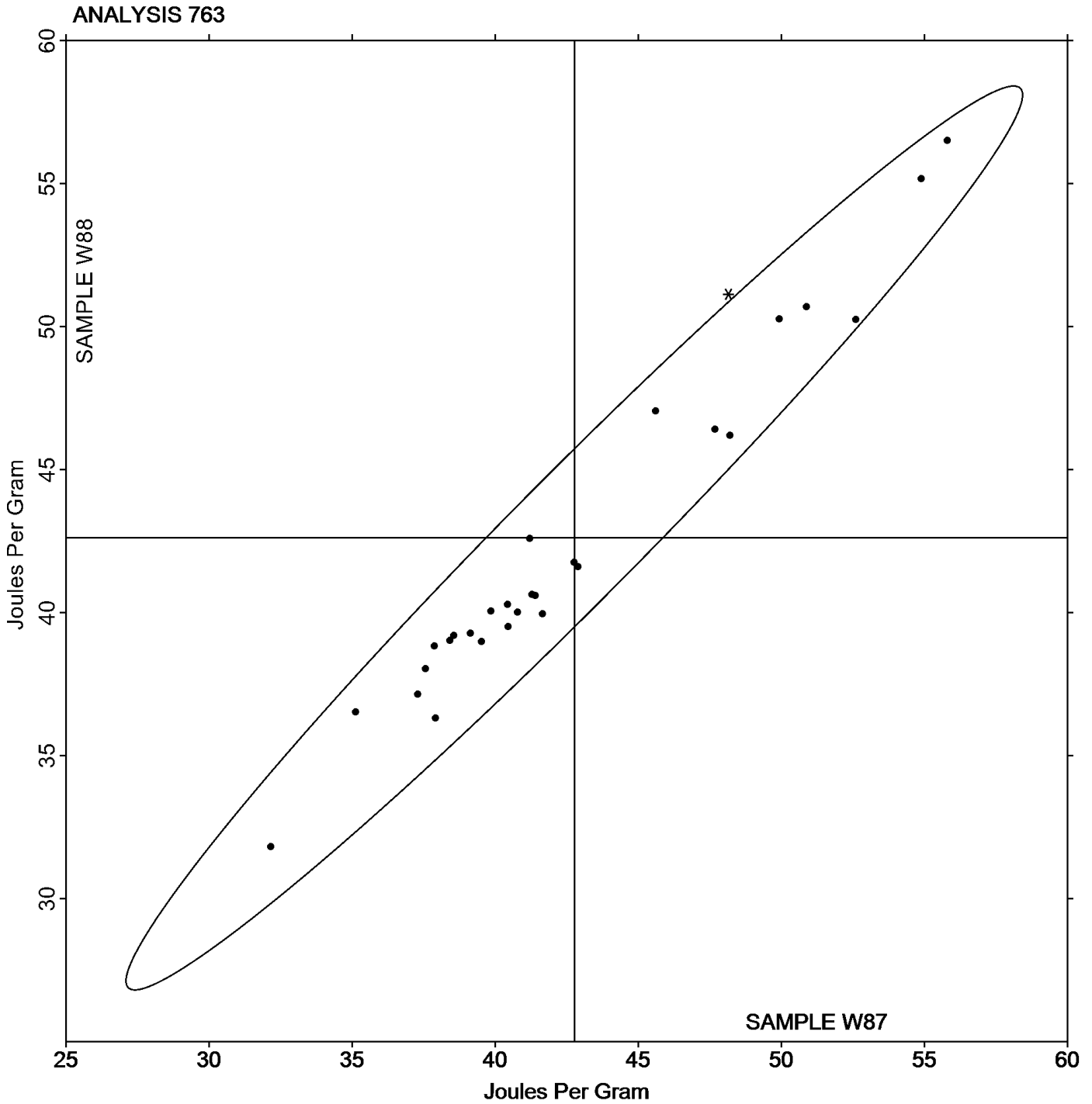
# Plastics Interlaboratory Testing Program

## Analysis 763 DSC Enthalpy of Fusion

Report #124

4th Qtr 2022

Grand Mean Sample W87: 42.762 Joules Per Gram    Grand Mean Sample W88: 42.609 Joules Per Gram







# Plastics Interlaboratory Testing Program

Report #124

## Analysis 764

4th Qtr 2022

### DSC Glass Transition Temperature

WebCode	Data Flag	Sample V87			Sample V88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2YTWM4		81.54	-0.74	-0.56	81.46	-0.73	-0.59	TA
3ZK7XW		83.64	1.36	1.04	82.93	0.74	0.60	XX
44EGEN		82.87	0.59	0.45	82.77	0.58	0.47	TA
4MR3CH		80.63	-1.65	-1.26	79.90	-2.29	-1.85	TA
6232KN		83.93	1.65	1.26	83.77	1.58	1.28	PE
76MEXN		83.07	0.79	0.60	82.50	0.31	0.25	TA
7E7X8M		83.07	0.79	0.60	83.43	1.24	1.01	NZ
7K2K9N		80.40	-1.88	-1.44	80.13	-2.06	-1.66	TA
CGD4AP		82.73	0.45	0.35	83.57	1.38	1.11	NZ
D8T2WN		83.17	0.89	0.68	83.13	0.94	0.76	PE
ED8HC3		81.97	-0.31	-0.24	80.83	-1.36	-1.10	TA
F7PCDB		83.42	1.14	0.87	83.62	1.43	1.16	XX
FY6979	*	78.19	-4.09	-3.13	78.95	-3.24	-2.62	MT
JCYYDG		82.60	0.32	0.24	82.76	0.57	0.46	TA
JLPBXA		82.53	0.25	0.19	82.47	0.28	0.22	TA
JMFLQN		84.09	1.81	1.38	83.04	0.85	0.69	TA
K8LD7V		82.06	-0.22	-0.17	82.25	0.06	0.05	TA
KB27WN		81.50	-0.78	-0.60	81.40	-0.79	-0.64	TA
KVMRPY		81.80	-0.48	-0.37	81.80	-0.39	-0.32	TA
KZYNLL		82.49	0.21	0.16	82.76	0.57	0.46	XX
LEYQHY		81.71	-0.57	-0.44	80.97	-1.22	-0.99	MT
MVVRFQ		82.66	0.38	0.29	82.84	0.65	0.53	TA
QDA3CZ	X	74.50	-7.78	-5.94	73.83	-8.36	-6.76	TA
TPBLFC	X	71.89	-10.39	-7.93	71.15	-11.04	-8.94	TA
TT7A2K		82.42	0.14	0.11	82.70	0.51	0.41	TA
WMTUYQ		81.67	-0.61	-0.47	81.93	-0.26	-0.21	TA
X9B4UW		84.60	2.32	1.77	83.80	1.61	1.30	TA
XE2BHW		81.78	-0.50	-0.38	81.79	-0.40	-0.32	TA
YBYVPZ		81.02	-1.26	-0.96	81.63	-0.56	-0.45	SH



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 764

4th Qtr 2022

### DSC Glass Transition Temperature

Summary Statistics	<u>Sample V87</u>	<u>Sample V88</u>
<b>Grand Means</b>	82.280 Degrees Celsius	82.191 Degrees Celsius
<b>Stnd Dev Btwn Labs</b>	1.310 Degrees Celsius	1.236 Degrees Celsius
Statistics based on 27 of 29 reporting participants		

Sample V87: PET & Sample V88: PET

#### **Comments on Assigned Data Flags for Test #764**

QDA3CZ (X) - Data for both samples are low. Possible Systematic Error.

TPBLFC (X) - Data for both samples are low. Possible Systematic Error.

#### **Key to Instrument Codes Reported by Participants**

MT Mettler Toledo Instruments

NZ Netzsch Instruments

PE Perkins Elmer Instruments

SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab



Plastics Interlaboratory Testing Program

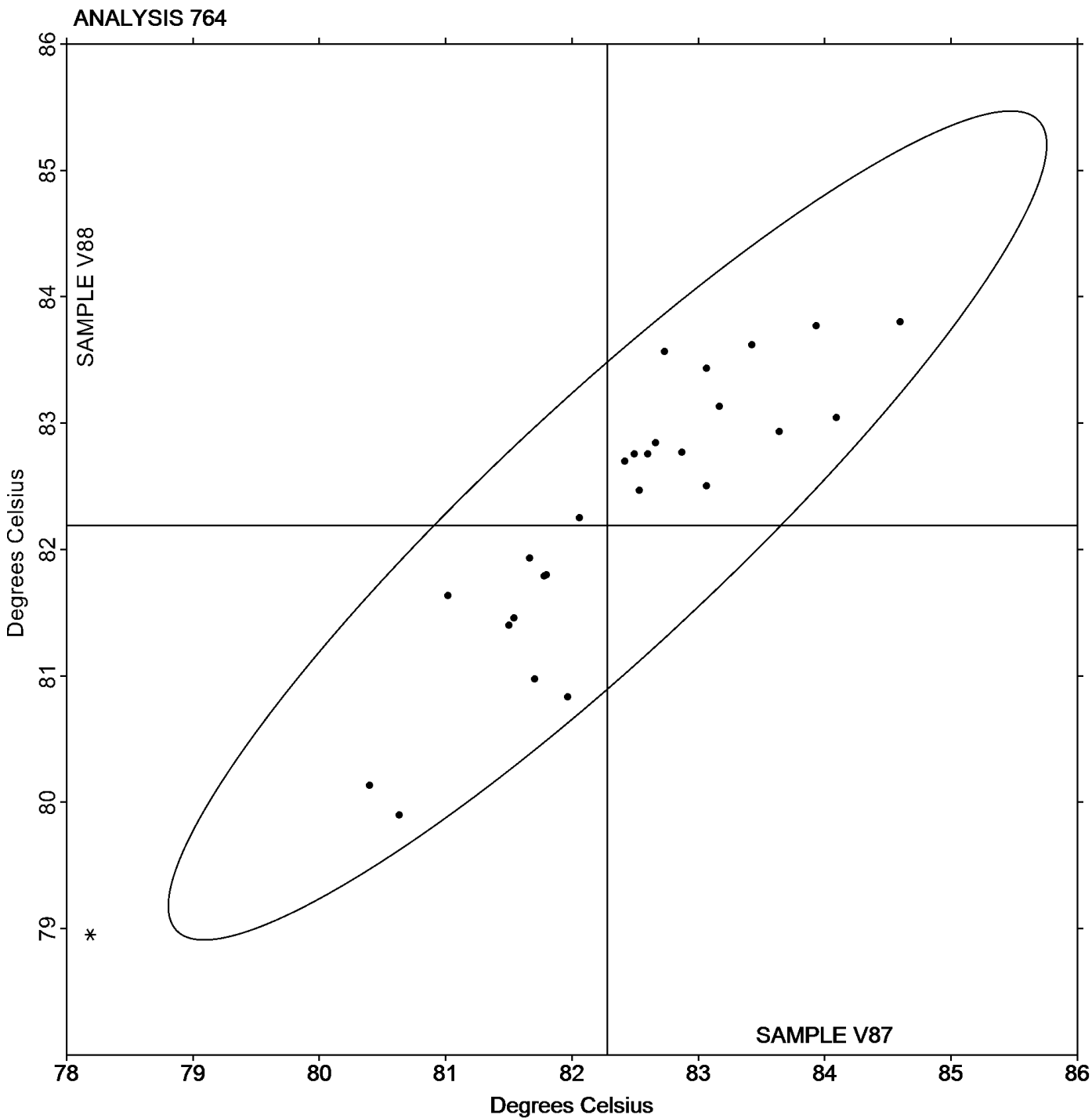
Analysis 764

DSC Glass Transition Temperature

Report #124

4th Qtr 2022

Grand Mean Sample V87: 82.280 Degrees Celsius    Grand Mean Sample V88: 82.191 Degrees Celsius





**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 765**

**4th Qtr 2022**

**Research Crystallization Peak Temperature**

WebCode	Data Flag	<u>Sample W87</u>			<u>Sample W88</u>			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3ZZNXW		170.80	-5.78	-1.09	171.00	-5.32	-1.04	TA
4MR3CH		180.83	4.25	0.81	181.10	4.78	0.93	TA
G8UG7P		172.04	-4.54	-0.86	172.25	-4.07	-0.79	SH
JLPBXA		170.10	-6.48	-1.23	169.23	-7.08	-1.38	XX
K8LD7V		173.03	-3.55	-0.67	172.55	-3.77	-0.73	TA
KVMRPY		186.53	9.95	1.89	185.63	9.32	1.82	TA
KZYNLL		174.86	-1.72	-0.33	175.63	-0.68	-0.13	XX
LEYQHY		179.81	3.23	0.61	179.32	3.00	0.59	MT
TPBLFC		179.63	3.05	0.58	178.97	2.66	0.52	XX
X9B4UW		178.17	1.59	0.30	177.47	1.15	0.22	TA

<b>Summary Statistics</b>		
	<u>Sample W87</u>	<u>Sample W88</u>
<b>Grand Means</b>	176.581 Degrees Celsius	176.315 Degrees Celsius
<b>Stnd Dev Btwn Labs</b>	5.280 Degrees Celsius	5.129 Degrees Celsius
Statistics based on 10 of 10 reporting participants		

Sample W87: PBT & Sample W88: PBT

**Key to Instrument Codes Reported by Participants**

- |    |                            |    |  |
|----|----------------------------|----|--|
| MT | Mettler Toledo Instruments | SH | Shimadzu                                     |
| TA | TA Instruments             | XX | Instrument manufacturer not specified by lab |



# Plastics Interlaboratory Testing Program

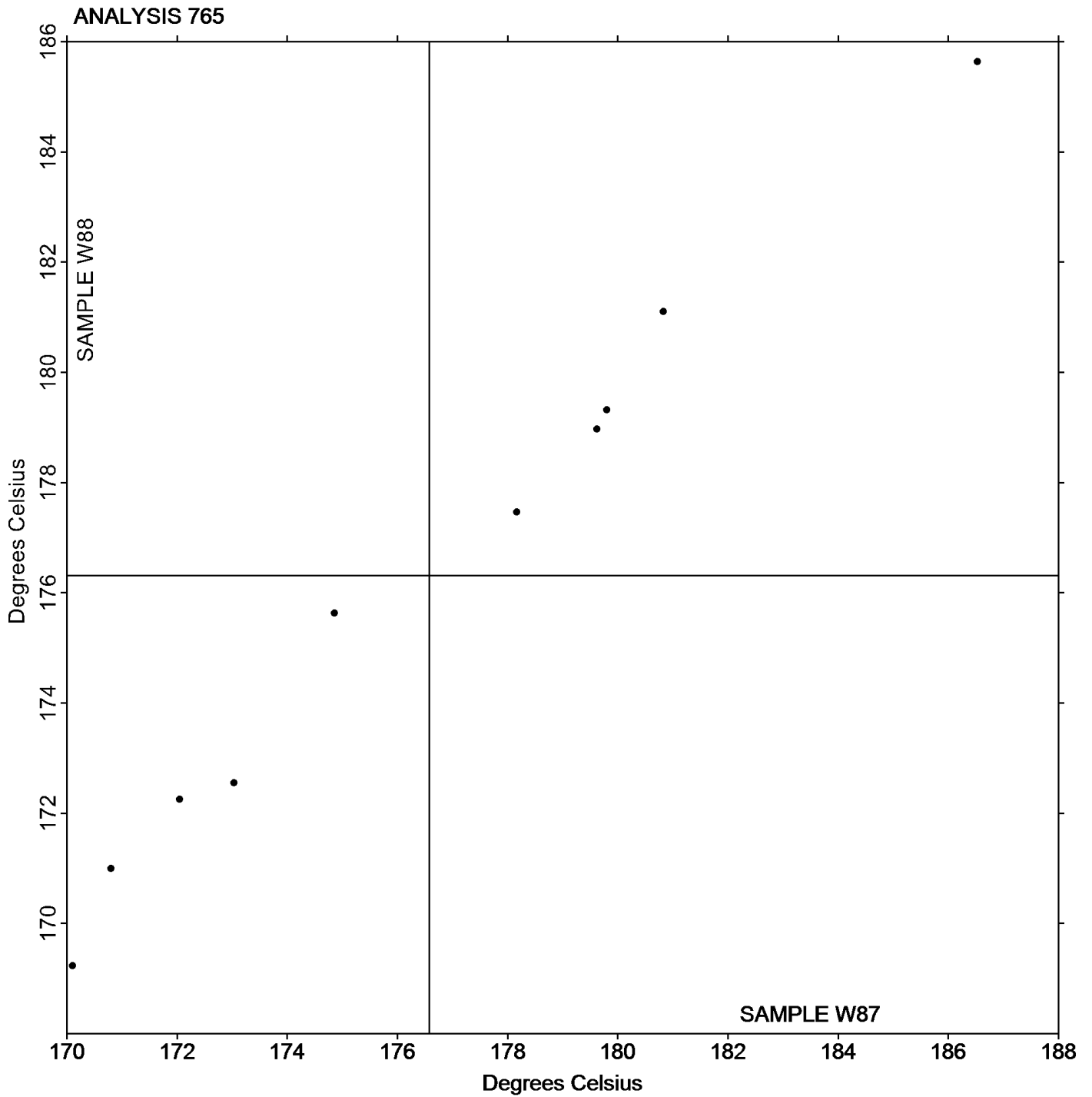
## Analysis 765

### Research Crystallization Peak Temperature

Report #124

4th Qtr 2022

Grand Mean Sample W87: 176.58 Degrees Celsius    Grand Mean Sample W88: 176.32 Degrees Celsius



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 766**

**4th Qtr 2022**

**Research Melting Peak Temperature**

WebCode	Data Flag	Sample W87			Sample W88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3ZZNXW		225.47	2.40	1.95	223.00	0.14	0.15	TA
4MR3CH		221.17	-1.90	-1.55	221.27	-1.59	-1.69	XX
G8UG7P		224.38	1.31	1.07	224.45	1.60	1.69	SH
JLPBXA		222.63	-0.44	-0.36	222.20	-0.66	-0.70	TA
K8LD7V		222.41	-0.66	-0.54	222.85	-0.01	-0.01	TA
KVMRPY		223.70	0.63	0.51	223.60	0.74	0.79	TA
KZYNLL		221.67	-1.40	-1.14	221.41	-1.45	-1.54	XX
LEYQHY		224.06	0.99	0.80	223.73	0.87	0.92	MT
TPBLFC		222.03	-1.04	-0.85	222.54	-0.31	-0.33	XX
X9B4UW		222.90	-0.17	-0.14	222.83	-0.02	-0.03	TA
Z4AULR		222.80	-0.27	-0.22	222.72	-0.14	-0.15	TA
ZC4YFT		223.63	0.56	0.45	223.69	0.84	0.89	XX

Summary Statistics		
	Sample W87	Sample W88
<b>Grand Means</b>	223.071 Degrees Celsius	222.858 Degrees Celsius
<b>Std Dev Btwn Labs</b>	1.226 Degrees Celsius	0.941 Degrees Celsius
Statistics based on 12 of 12 reporting participants		

Sample W87: PBT & Sample W88: PBT

**Key to Instrument Codes Reported by Participants**

- MT Mettler Toledo Instruments
- SH Shimadzu
- TA TA Instruments
- XX Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

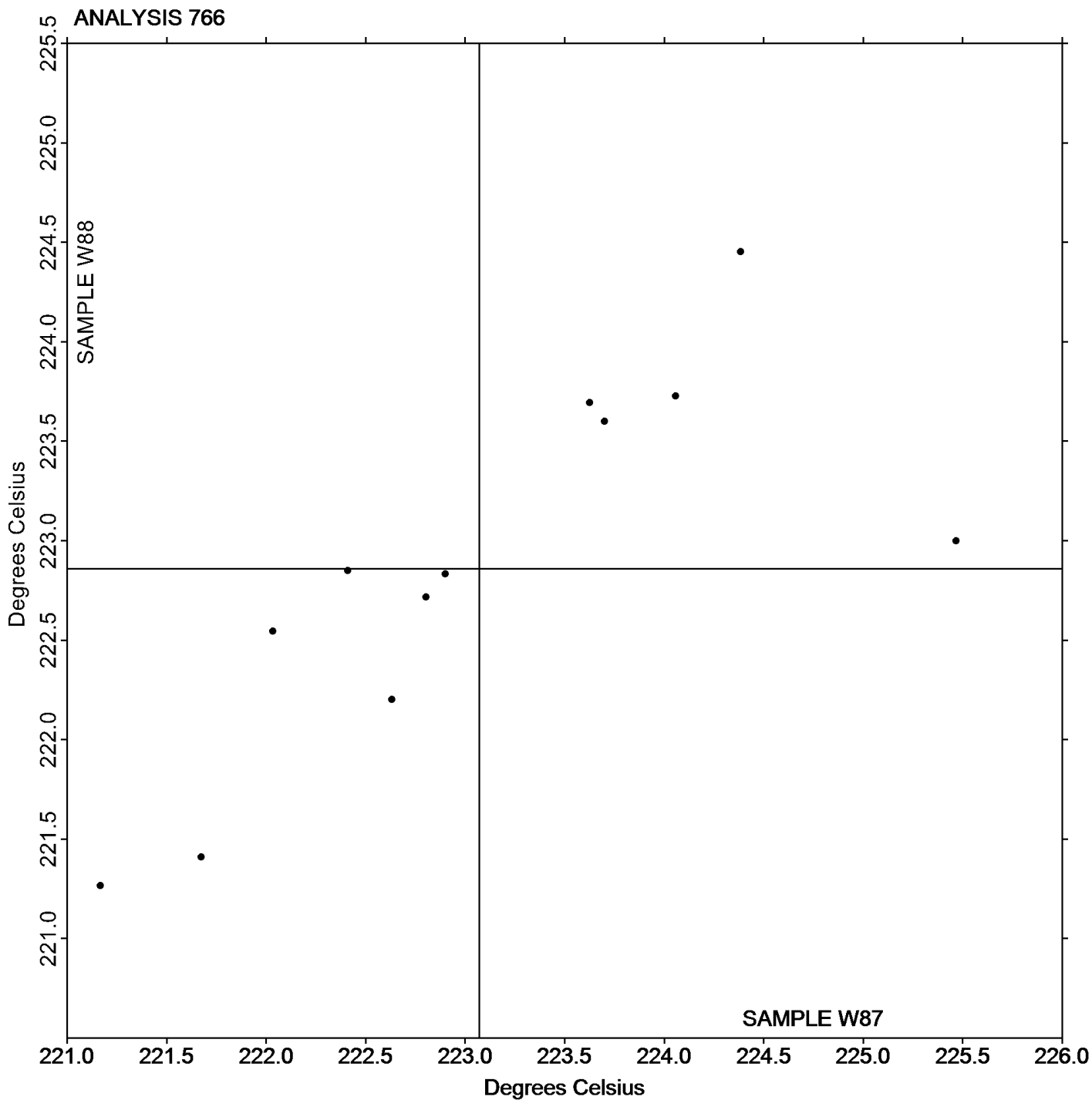
## Analysis 766

### Research Melting Peak Temperature

Report #124

4th Qtr 2022

Grand Mean Sample W87: 223.07 Degrees Celsius    Grand Mean Sample W88: 222.86 Degrees Celsius



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 767

4th Qtr 2022

### Research Heat of Crystallization

WebCode	Data Flag	Sample W87			Sample W88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3ZZNXW		43.39	-7.46	-1.31	43.69	-6.99	-1.39	TA
4MR3CH		52.58	1.73	0.30	53.51	2.83	0.56	XX
G8UG7P		53.17	2.32	0.41	50.83	0.15	0.03	SH
JLPBXA		44.88	-5.97	-1.05	47.18	-3.50	-0.69	TA
K8LD7V		44.21	-6.64	-1.16	43.94	-6.74	-1.34	TA
KVMRPY		61.17	10.32	1.81	58.83	8.15	1.62	TA
KZYNLL		49.53	-1.32	-0.23	48.72	-1.96	-0.39	XX
LEYQHY		50.29	-0.56	-0.10	52.49	1.81	0.36	MT
TPBLFC		52.17	1.32	0.23	50.58	-0.10	-0.02	XX
X9B4UW		57.10	6.25	1.10	57.03	6.35	1.26	TA

#### Summary Statistics

##### Grand Means

##### Sample W87

50.849 Joules Per Gram

##### Sample W88

50.681 Joules Per Gram

##### Std Dev Btwn Labs

5.707 Joules Per Gram

5.040 Joules Per Gram

Statistics based on 10 of 10 reporting participants

Sample W87: PBT & Sample W88: PBT

#### Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab





Plastics Interlaboratory Testing Program

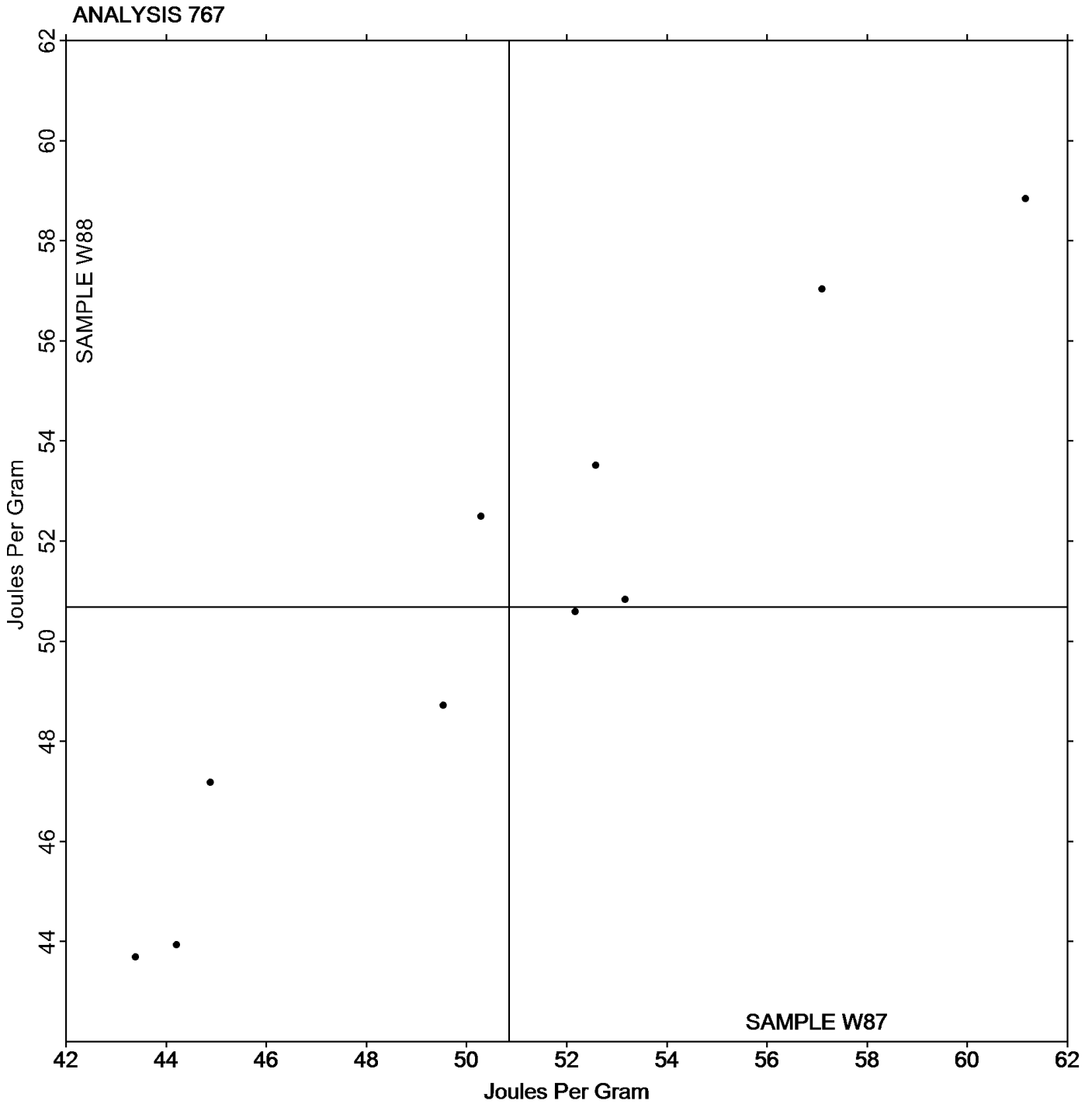
Analysis 767

Research Heat of Crystallization

Report #124

4th Qtr 2022

Grand Mean Sample W87: 50.849 Joules Per Gram    Grand Mean Sample W88: 50.681 Joules Per Gram



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 768

4th Qtr 2022

### Research Heat of Fusion

WebCode	Data Flag	Sample W87			Sample W88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3ZZNXW		37.90	-8.88	-1.06	39.51	-7.51	-0.83	TA
4MR3CH		55.80	9.02	1.07	56.50	9.48	1.05	TA
G8UG7P		36.40	-10.38	-1.24	36.29	-10.73	-1.19	SH
JLPBXA		40.79	-5.99	-0.71	39.51	-7.51	-0.83	TA
K8LD7V		42.76	-4.03	-0.48	41.75	-5.27	-0.58	TA
KVMRPY		58.87	12.08	1.44	63.33	16.31	1.81	TA
KZYNLL		39.14	-7.64	-0.91	39.27	-7.75	-0.86	XX
LEYQHY		48.15	1.37	0.16	51.13	4.11	0.46	MT
TPBLFC		52.60	5.82	0.69	50.23	3.21	0.36	XX
X9B4UW		55.43	8.65	1.03	52.67	5.65	0.63	TA

#### Summary Statistics

##### Grand Means

##### Sample W87

46.785 Joules Per Gram

##### Sample W88

47.020 Joules Per Gram

##### Std Dev Btwn Labs

8.400 Joules Per Gram

9.011 Joules Per Gram

Statistics based on 10 of 10 reporting participants

Sample W87: PBT & Sample W88: PBT

#### Key to Instrument Codes Reported by Participants

MT Mettler Toledo Instruments

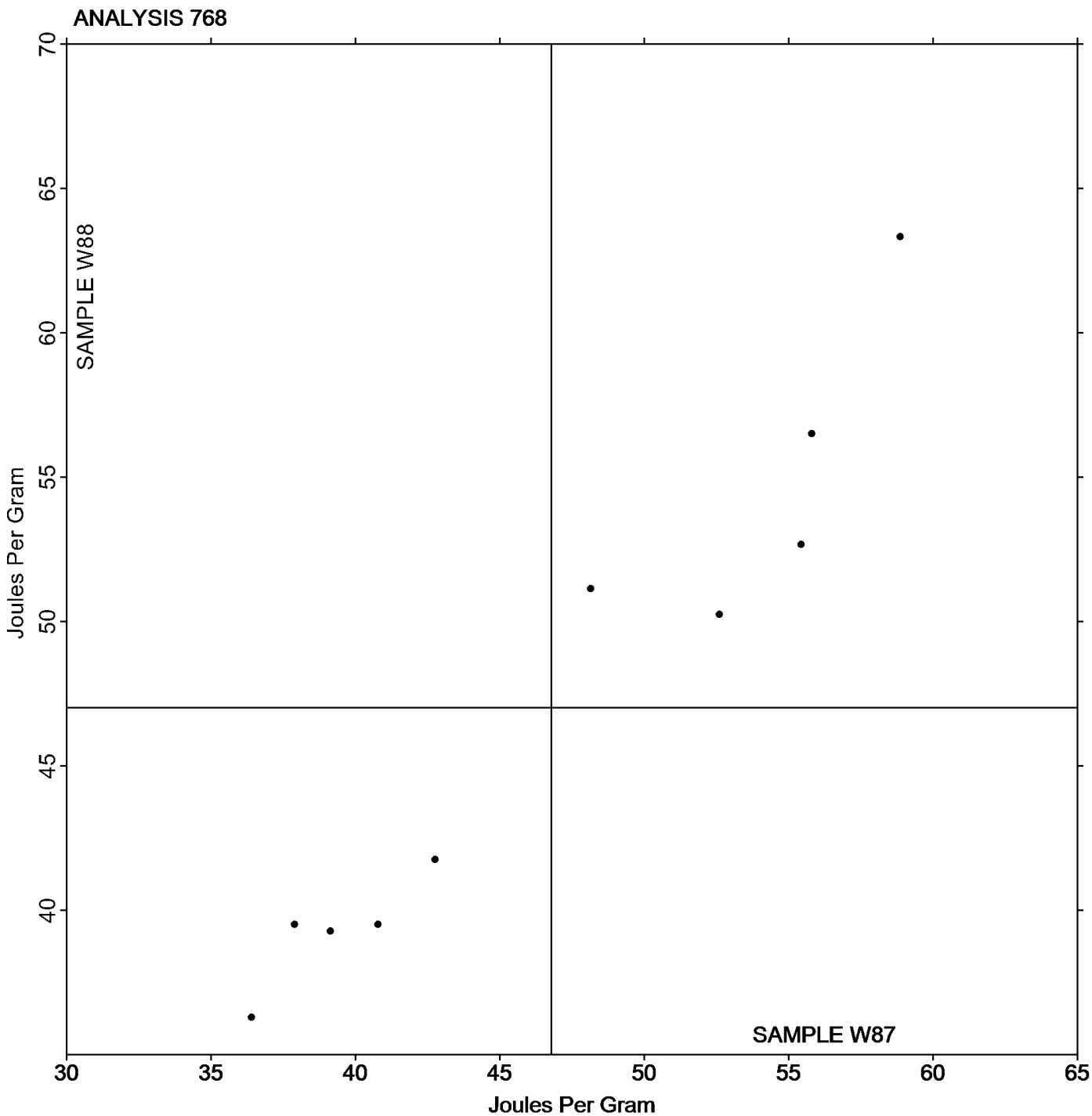
SH Shimadzu

TA TA Instruments

XX Instrument manufacturer not specified by lab



Grand Mean Sample W87: 46.785 Joules Per Gram    Grand Mean Sample W88: 47.020 Joules Per Gram



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 769**

**4th Qtr 2022**

**Research Glass Transition Temperature**

WebCode	Data Flag	Sample V87			Sample V88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3ZZNXW		80.77	-0.28	-0.08	80.77	-0.42	-0.11	TA
4MR3CH		80.63	-0.41	-0.12	79.90	-1.28	-0.35	TA
CGD4AP		82.73	1.69	0.49	83.57	2.38	0.66	NZ
G8UG7P		82.63	1.58	0.46	82.28	1.10	0.30	SH
JLPBXA		82.63	1.59	0.46	82.30	1.12	0.31	TA
K8LD7V		82.06	1.01	0.30	82.25	1.07	0.29	TA
KVMRPY		81.80	0.75	0.22	81.80	0.62	0.17	TA
KZYNLL		79.16	-1.89	-0.55	82.76	1.57	0.43	XX
LEYQHY		81.71	0.66	0.19	80.97	-0.21	-0.06	MT
TPBLFC		71.89	-9.15	-2.67	71.15	-10.04	-2.77	XX
ZC4YFT		85.49	4.45	1.30	85.27	4.08	1.13	XX

**Summary Statistics**

	Sample V87	Sample V88
<b>Grand Means</b>	81.046 Degrees Celsius	81.182 Degrees Celsius
<b>Stnd Dev Btwn Labs</b>	3.424 Degrees Celsius	3.625 Degrees Celsius

Statistics based on 11 of 11 reporting participants

Sample V87: PET & Sample V88: PET

**Key to Instrument Codes Reported by Participants**

- MT Mettler Toledo Instruments
- SH Shimadzu
- XX Instrument manufacturer not specified by lab
- NZ Netzsch Instruments
- TA TA Instruments



# Plastics Interlaboratory Testing Program

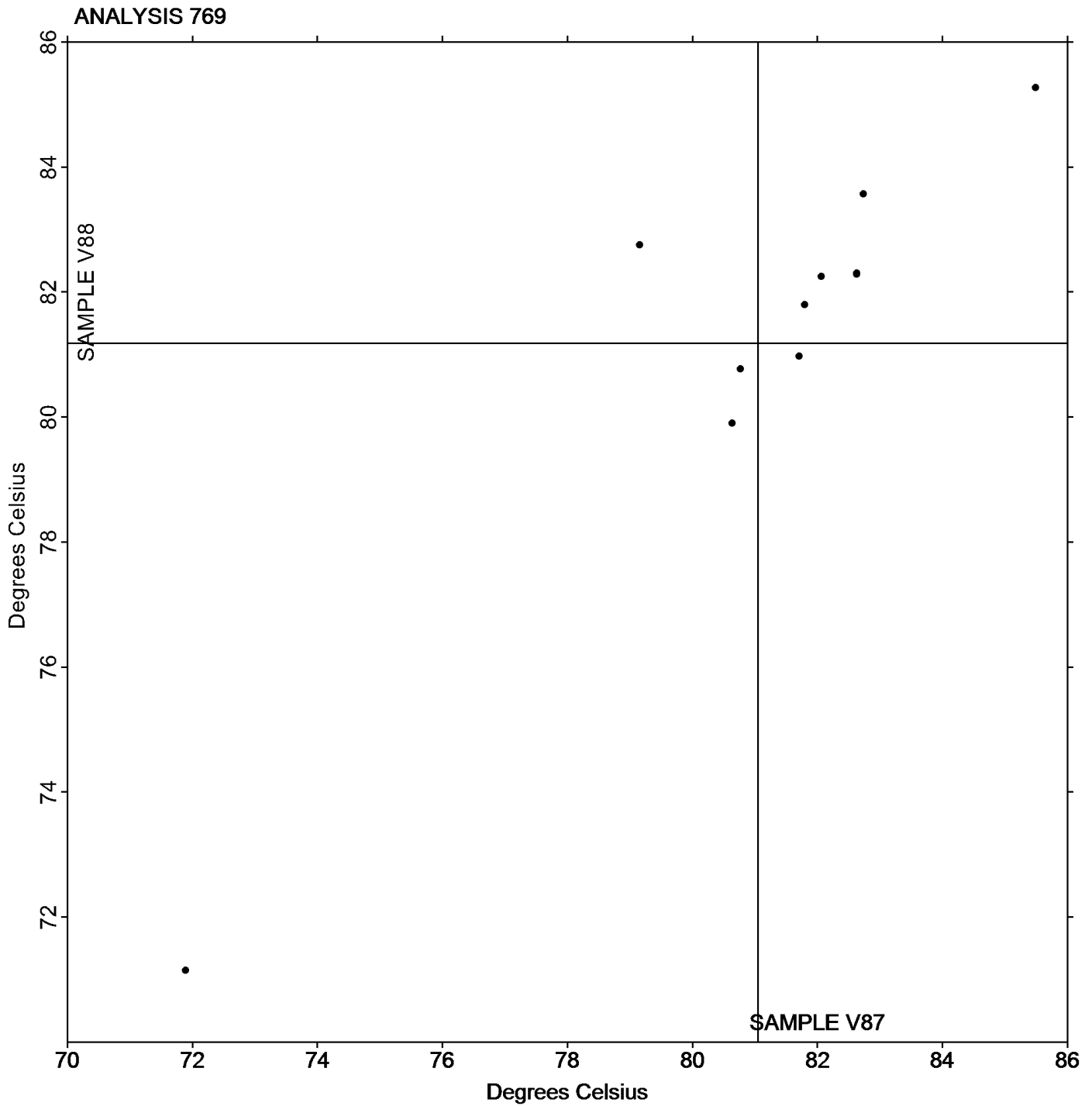
## Analysis 769

### Research Glass Transition Temperature

Report #124

4th Qtr 2022

Grand Mean Sample V87: 81.046 Degrees Celsius    Grand Mean Sample V88: 81.182 Degrees Celsius



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 770

4th Qtr 2022

### Tensile Stress at Yield, Film Samples - psi

WebCode	Data Flag	Sample B87			Sample B88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		1,594	-125	-0.49	1,527	-199	-0.72	IN
3ZZNXW		1,801	82	0.33	1,821	95	0.35	IN
72X2ZD		1,705	-13	-0.05	1,683	-43	-0.16	IN
7K2K9N		1,656	-63	-0.25	1,769	44	0.16	IM
8MC2QQ		1,372	-347	-1.37	1,388	-338	-1.22	IN
A9DMUJ	*	2,197	478	1.89	1,984	258	0.94	LI
EB4KAM		1,758	39	0.15	1,767	41	0.15	WZ
EJV2YR		1,746	27	0.11	1,787	61	0.22	IN
FPEKEC		1,668	-51	-0.20	1,718	-8	-0.03	IN
JLPBXA	*	2,520	801	3.16	2,676	950	3.44	UC
JMFLQN		1,519	-200	-0.79	1,614	-112	-0.40	WZ
JNPNDM		1,481	-238	-0.94	1,423	-303	-1.10	TO
JP8K2F		1,660	-58	-0.23	1,696	-29	-0.11	SH
NEN27X		1,689	-30	-0.12	1,552	-174	-0.63	MT
PLHJ2L		1,790	71	0.28	1,768	43	0.15	OA
T8EWNN		1,667	-51	-0.20	1,600	-125	-0.45	XX
WQMRBB		1,592	-127	-0.50	1,676	-49	-0.18	MT
Y68RDM		1,697	-21	-0.08	1,689	-36	-0.13	IN
YBYVPZ		1,798	80	0.32	1,959	234	0.85	WZ
YKJ7W7		1,464	-255	-1.01	1,415	-311	-1.13	SH

Summary Statistics		Sample B87	Sample B88
<b>Grand Means</b>		1,718.7 psi	1,725.6 psi
<b>Stnd Dev Btwn Labs</b>		253.2 psi	276.2 psi
Statistics based on 20 of 20 reporting participants			

Sample B87: LDPE & Sample B88: LDPE

### Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
OA	Oakland Testing	SH	Shimadzu
TO	Tinius Olsen	UC	United
WZ	Zwick	XX	Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

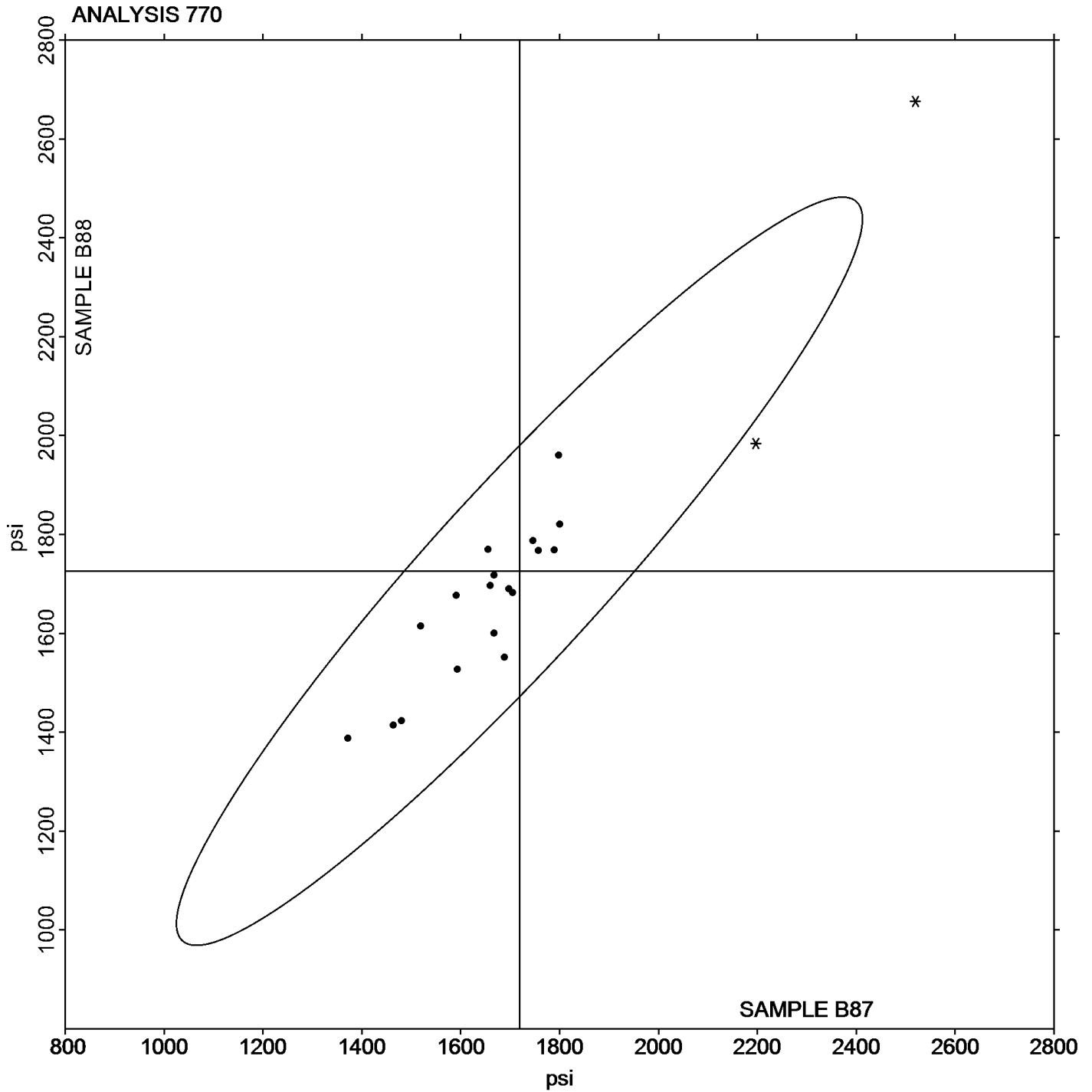
## Analysis 770

### Tensile Stress at Yield, Film Samples - psi

Report #124

4th Qtr 2022

Grand Mean Sample B87: 1,718.68 psi    Grand Mean Sample B88: 1,725.63 psi





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 771

4th Qtr 2022

### Tensile Stress at Break, Film Samples - psi

WebCode	Data Flag	Sample B87			Sample B88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		3,927	501	1.05	3,688	371	0.71	IN
3TKPMQ	*	2,041	-1,385	-2.90	1,848	-1,469	-2.82	IN
3ZZNXW		4,206	780	1.63	3,917	600	1.15	IN
72X2ZD		3,294	-133	-0.28	3,147	-171	-0.33	IN
7K2K9N		3,276	-150	-0.32	3,634	317	0.61	IM
8MC2QQ		3,062	-364	-0.76	2,920	-397	-0.76	IN
A9DMUU		3,258	-168	-0.35	3,213	-104	-0.20	LI
CZ9WUM		2,985	-441	-0.92	2,970	-347	-0.67	XX
EB4KAM		3,745	319	0.67	3,665	347	0.67	WZ
EJV2YR		3,598	172	0.36	3,621	304	0.58	IN
FPEKEC		3,453	27	0.06	3,348	31	0.06	IN
JMFLQN		3,658	232	0.49	3,542	225	0.43	WZ
JNPNDM		2,920	-506	-1.06	2,555	-762	-1.46	TO
JP8K2F		3,262	-164	-0.34	3,467	150	0.29	SH
LQ42VM		3,761	335	0.70	3,543	226	0.43	TH
NEN27X	*	3,280	-146	-0.31	2,572	-745	-1.43	MT
PLHJ2L		3,852	426	0.89	3,660	342	0.66	OA
T8EWNN		3,384	-42	-0.09	3,517	200	0.38	XX
WQMRBB		3,743	317	0.66	3,511	194	0.37	MT
Y68RDM		3,784	358	0.75	3,580	262	0.50	IN
YBYVPZ		3,987	561	1.18	4,159	842	1.62	WZ
YKJ7W7		2,899	-527	-1.10	2,905	-412	-0.79	SH

#### Summary Statistics

	Sample B87	Sample B88
<b>Grand Means</b>	3,426.1 psi	3,317.3 psi
<b>Std Dev Btwn Labs</b>	477.1 psi	520.6 psi

Statistics based on 22 of 22 reporting participants

Sample B87: LDPE & Sample B88: LDPE





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 771

4th Qtr 2022

### Tensile Stress at Break, Film Samples - psi

#### Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
OA	Oakland Testing	SH	Shimadzu
TH	Thwing Albert	TO	Tinius Olsen
WZ	Zwick	XX	Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

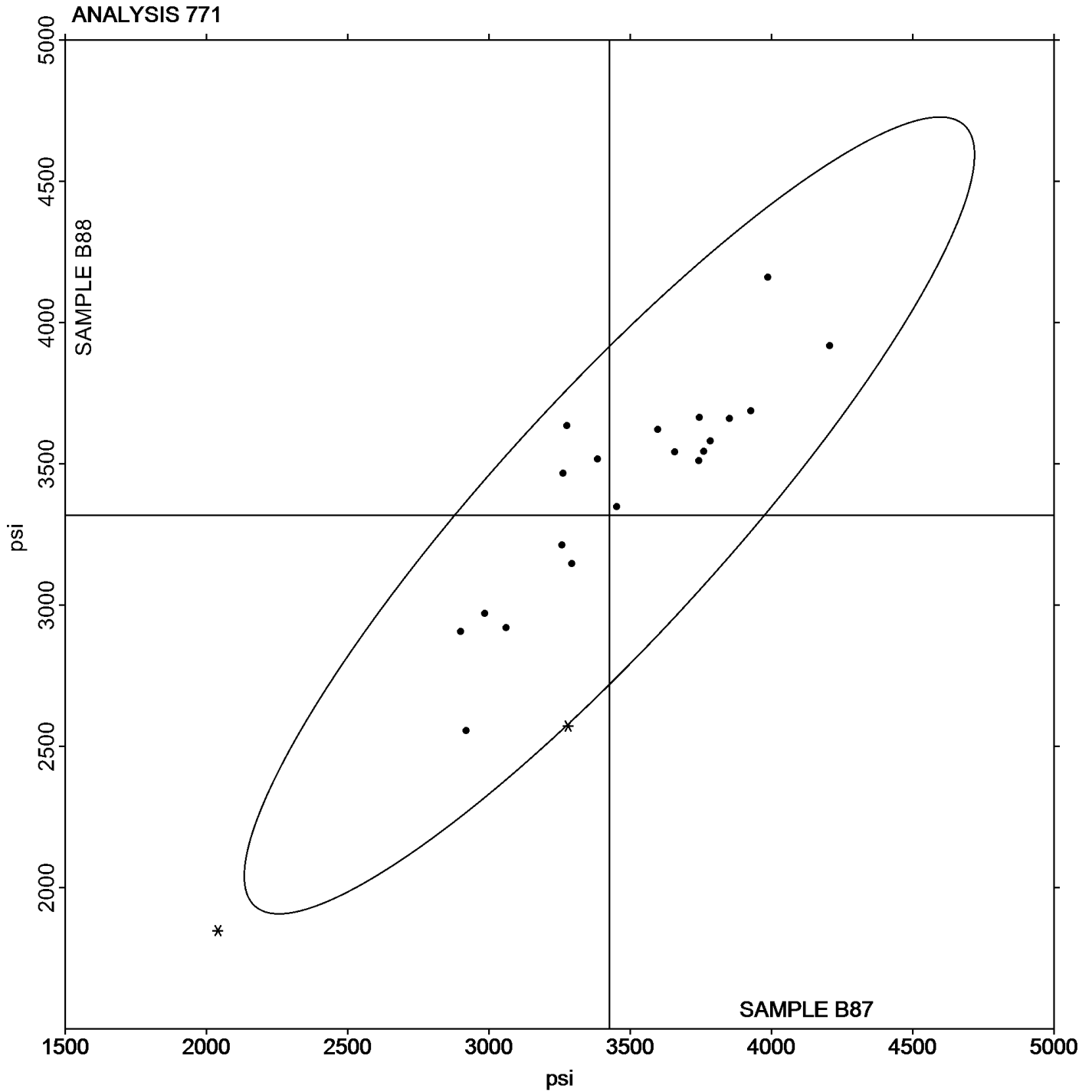
Report #124

## Analysis 771

4th Qtr 2022

### Tensile Stress at Break, Film Samples - psi

Grand Mean Sample B87: 3,426.13 psi    Grand Mean Sample B88: 3,317.28 psi





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 772

4th Qtr 2022

### Percent Elongation at Yield, Films

WebCode	Data Flag	Sample B87			Sample B88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		8.00	-34.44	-1.65	8.12	-53.12	-2.12	IN
3ZZNXW		30.08	-12.35	-0.59	59.27	-1.97	-0.08	IN
72X2ZD		53.65	11.22	0.54	69.53	8.29	0.33	IN
7K2K9N		57.41	14.98	0.72	89.83	28.59	1.14	IM
8MC2QQ		43.33	0.90	0.04	69.80	8.56	0.34	IN
A9DMUJ		14.51	-27.92	-1.34	83.02	21.78	0.87	LI
EB4KAM		49.99	7.56	0.36	74.16	12.92	0.52	WZ
EJV2YR		48.57	6.14	0.29	70.30	9.06	0.36	IN
FPEKEC		49.75	7.32	0.35	76.52	15.28	0.61	IN
JMFLQN		57.18	14.74	0.71	78.01	16.77	0.67	WZ
JNPNDM		24.18	-18.25	-0.87	39.16	-22.08	-0.88	TO
JP8K2F		89.60	47.16	2.26	84.60	23.36	0.93	SH
LQ42VM		48.66	6.23	0.30	76.58	15.34	0.61	TH
NEN27X		13.25	-29.18	-1.40	12.03	-49.21	-1.97	MT
T8EWNN		15.82	-26.61	-1.28	15.79	-45.45	-1.82	XX
WQMRBB		48.17	5.74	0.28	75.19	13.95	0.56	MT
Y68RDM		46.52	4.09	0.20	73.85	12.61	0.50	IN
YBYVPZ		37.30	-5.13	-0.25	58.70	-2.54	-0.10	WZ
YKJ7W7		70.25	27.82	1.33	49.12	-12.12	-0.48	SH

Summary Statistics		
	Sample B87	Sample B88
<b>Grand Means</b>	42.432 Percent	61.241 Percent
<b>Stnd Dev Btwn Labs</b>	20.871 Percent	25.040 Percent
Statistics based on 19 of 19 reporting participants		

Sample B87: LDPE & Sample B88: LDPE

### Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
SH	Shimadzu	TH	Thwing Albert
TO	Tinius Olsen	WZ	Zwick
XX	Instrument manufacturer not specified by lab		



# Plastics Interlaboratory Testing Program

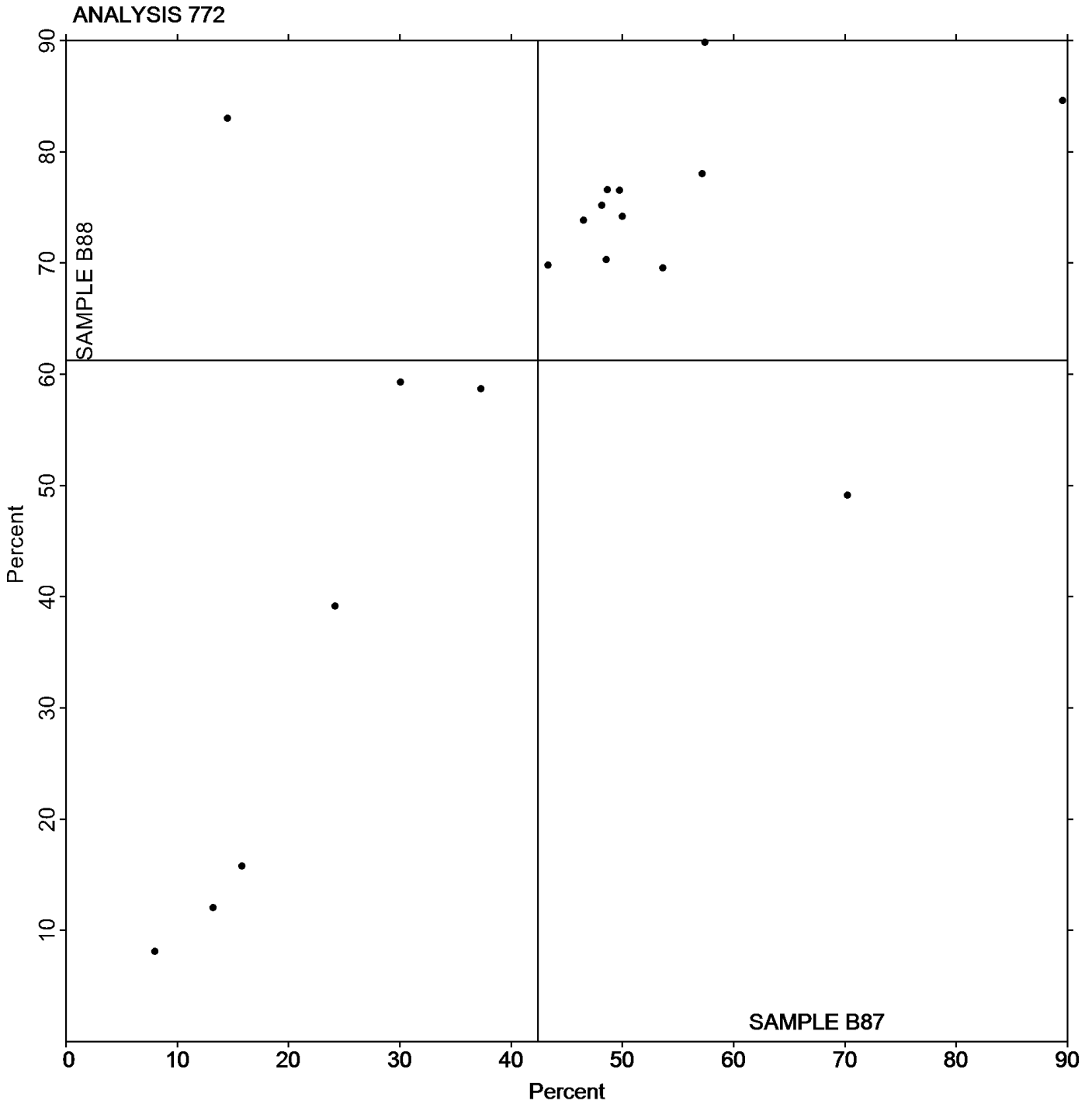
Report #124

## Analysis 772

4th Qtr 2022

### Percent Elongation at Yield, Films

Grand Mean Sample B87: 42.432 Percent    Grand Mean Sample B88: 61.241 Percent



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 773**

**4th Qtr 2022**

**Percent Elongation at Break, Film Samples**

WebCode	Data Flag	Sample B87			Sample B88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		720.3	-144.4	-1.10	647.2	-128.4	-0.98	IN
3TKPMQ		781.2	-83.4	-0.63	552.5	-223.1	-1.70	IN
3ZZNXW		741.9	-122.7	-0.93	660.0	-115.6	-0.88	IN
72X2ZD		925.6	61.0	0.46	800.6	25.0	0.19	IN
7K2K9N		1,008.6	143.9	1.09	997.2	221.6	1.69	IM
8MC2QQ		856.8	-7.8	-0.06	761.7	-13.9	-0.11	IN
A9DMUU		768.6	-96.0	-0.73	734.2	-41.4	-0.32	LI
CZ9WUM	X	2,124.5	1,259.9	9.57	971.3	195.6	1.49	XX
EB4KAM		706.5	-158.1	-1.20	653.7	-121.9	-0.93	WZ
EJV2YR		879.3	14.7	0.11	826.4	50.8	0.39	IN
FPEKEC		998.0	133.4	1.01	899.0	123.4	0.94	IN
JMFLQN		1,110.0	245.4	1.86	934.0	158.4	1.21	WZ
JNPNDM		978.0	113.4	0.86	766.1	-9.5	-0.07	TO
JP8K2F		879.3	14.6	0.11	912.3	136.7	1.04	SH
LQ42VM		1,113.1	248.4	1.89	976.9	201.3	1.53	TH
NEN27X		730.8	-133.9	-1.02	551.3	-224.4	-1.71	MT
PLHJ2L		851.5	-13.2	-0.10	742.0	-33.6	-0.26	OA
T8EWNN		863.7	-0.9	-0.01	814.5	38.9	0.30	XX
WQMRBB		826.2	-38.4	-0.29	721.2	-54.5	-0.41	MT
Y68RDM		1,009.8	145.1	1.10	924.2	148.5	1.13	IN
YBYVPZ		707.0	-157.6	-1.20	639.0	-136.6	-1.04	WZ
YKJ7W7		701.5	-163.1	-1.24	774.5	-1.1	-0.01	SH

Summary Statistics		Sample B87	Sample B88
<b>Grand Means</b>		864.65 Percent	775.65 Percent
<b>Std Dev Btwn Labs</b>		131.66 Percent	131.33 Percent
Statistics based on 21 of 22 reporting participants			

Sample B87: LDPE & Sample B88: LDPE

**Comments on Assigned Data Flags for Test #773**

CZ9WUM (X) - Extreme data for sample B87.



# Plastics Interlaboratory Testing Program

## Analysis 773

### Percent Elongation at Break, Film Samples

Report #124

4th Qtr 2022

#### Key to Instrument Codes Reported by Participants

IM Instru-Met Instruments

LI Lloyd Instruments

OA Oakland Testing

TH Thwing Albert

WZ Zwick

IN Instron

MT MTS/Sintech

SH Shimadzu

TO Tinius Olsen

XX Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

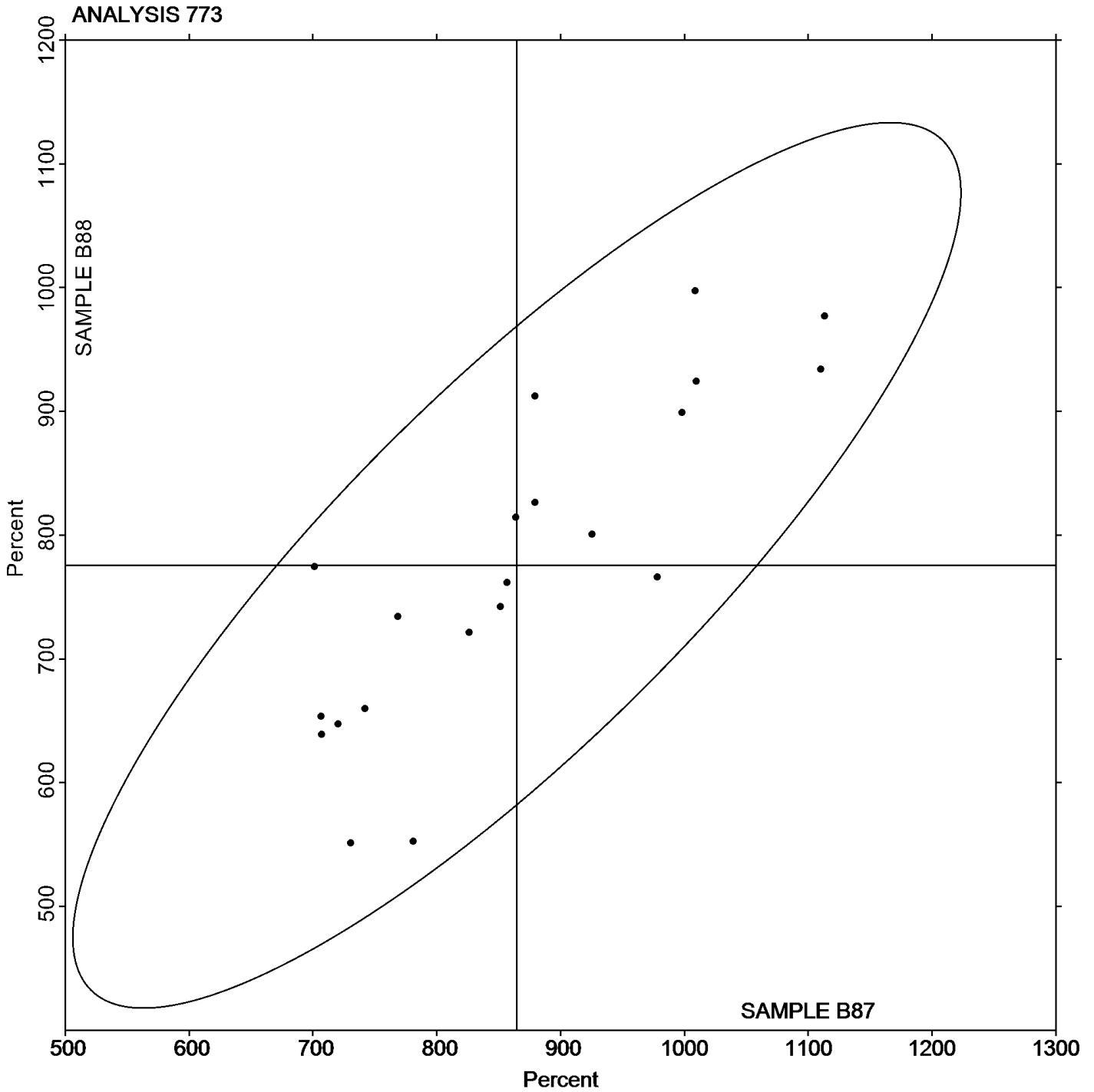
Report #124

## Analysis 773

4th Qtr 2022

### Percent Elongation at Break, Film Samples

Grand Mean Sample B87: 864.65 Percent    Grand Mean Sample B88: 775.65 Percent





**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 774**

**4th Qtr 2022**

**Thickness of Film Tensile Samples - mils**

WebCode	Data Flag	Sample B87			Sample B88		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3RQ26V		3.0480	0.1260	0.77	2.8190	-0.0531	-0.43
3TKPMQ		3.1811	0.2591	1.59	2.9803	0.1082	0.87
3ZZNXW		2.8930	-0.0290	-0.18	2.7230	-0.1491	-1.20
46CP3Z		2.7220	-0.2000	-1.23	2.8140	-0.0581	-0.47
72X2ZD		3.0220	0.1000	0.61	2.9720	0.0999	0.81
7K2K9N		2.8880	-0.0340	-0.21	3.0500	0.1779	1.44
8MC2QQ		2.9000	-0.0220	-0.13	3.0000	0.1279	1.03
A9DMUU	*	2.4650	-0.4570	-2.80	2.6083	-0.2638	-2.13
BJNVTR		2.7170	-0.2050	-1.26	2.8150	-0.0571	-0.46
EB4KAM		2.7638	-0.1582	-0.97	2.7992	-0.0729	-0.59
EJV2YR		2.8950	-0.0270	-0.17	2.9050	0.0329	0.27
FPEKEC		2.9000	-0.0220	-0.13	2.9400	0.0679	0.55
HGTM93		3.0787	0.1567	0.96	2.9331	0.0609	0.49
JLPBXA		2.7000	-0.2220	-1.36	2.8300	-0.0421	-0.34
JMFLQN		3.1729	0.2509	1.54	2.7256	-0.1465	-1.18
JNPNDM		2.9095	-0.0125	-0.08	2.8977	0.0256	0.21
JP8K2F		3.0666	0.1446	0.89	3.0004	0.1283	1.04
LQ42VM		2.9930	0.0710	0.44	2.8230	-0.0491	-0.40
NEN27X		2.9800	0.0580	0.36	2.9500	0.0779	0.63
PLHJ2L		2.8880	-0.0340	-0.21	2.8950	0.0229	0.18
T8EWNN		2.9409	0.0189	0.12	2.9212	0.0491	0.40
WQMRBB		3.1496	0.2276	1.40	2.9528	0.0806	0.65
Y68RDM		2.9016	-0.0204	-0.12	2.8662	-0.0059	-0.05
YBYVPZ	*	2.9843	0.0623	0.38	2.5551	-0.3170	-2.56
YKJ7W7		2.8898	-0.0322	-0.20	3.0276	0.1554	1.25

Summary Statistics		
	Sample B87	Sample B88
<b>Grand Means</b>	2.92199 mils	2.87214 mils
<b>Stnd Dev Btwn Labs</b>	0.16298 mils	0.12394 mils
Statistics based on 25 of 25 reporting participants		

Sample B87: LDPE & Sample B88: LDPE





# Plastics Interlaboratory Testing Program

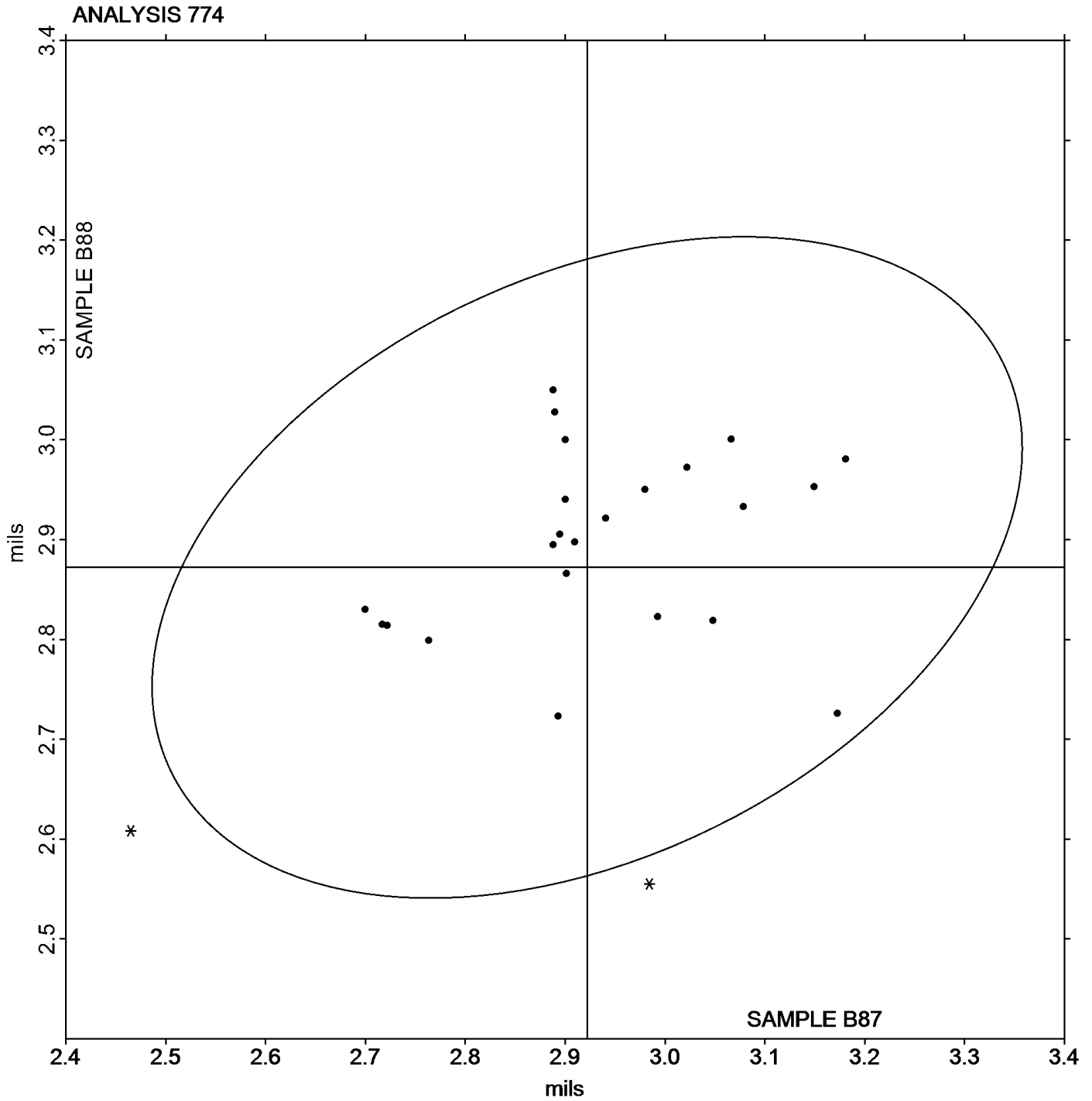
## Analysis 774

### Thickness of Film Tensile Samples - mils

Report #124

4th Qtr 2022

Grand Mean Sample B87: 2.9220 mils    Grand Mean Sample B88: 2.8721 mils





**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 775**

**4th Qtr 2022**

**Secant Modulus at 1% Strain - psi**

WebCode	Data Flag	Sample B87			Sample B88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		30,966	-1,916	-0.39	30,433	361	0.08	IN
3TKPMQ		23,780	-9,102	-1.86	23,054	-7,018	-1.61	IN
3ZZNXW		35,910	3,028	0.62	32,790	2,718	0.62	IN
72X2ZD		32,647	-235	-0.05	30,323	251	0.06	IN
7K2K9N		34,235	1,353	0.28	31,421	1,349	0.31	IM
A9DMUJ		33,901	1,019	0.21	29,238	-834	-0.19	LI
EB4KAM		34,997	2,115	0.43	33,472	3,400	0.78	WZ
EJV2YR		35,031	2,149	0.44	31,972	1,900	0.44	IN
JMFLQN		31,169	-1,713	-0.35	27,717	-2,355	-0.54	WZ
JNPNDM		29,840	-3,042	-0.62	24,020	-6,052	-1.39	TO
JP8K2F		37,137	4,255	0.87	37,185	7,113	1.63	SH
NEN27X		37,698	4,816	0.98	33,709	3,637	0.83	MT
PLHJ2L		33,590	708	0.14	33,352	3,280	0.75	OA
T8EWNN		40,327	7,445	1.52	30,959	887	0.20	XX
YBYVPZ	X	54,201	21,319	4.36	49,676	19,604	4.49	WZ
YKJ7W7		22,002	-10,880	-2.22	21,437	-8,635	-1.98	SH

Summary Statistics		Sample B87	Sample B88
<b>Grand Means</b>		32,881.9 psi	30,072.1 psi
<b>Stnd Dev Btwn Labs</b>		4,895.2 psi	4,364.0 psi
Statistics based on 15 of 16 reporting participants			

Sample B87: LDPE & Sample B88: LDPE

**Comments on Assigned Data Flags for Test #775**

YBYVPZ (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

**Key to Instrument Codes Reported by Participants**

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
OA	Oakland Testing	SH	Shimadzu
TO	Tinius Olsen	WZ	Zwick
XX	Instrument manufacturer not specified by lab		



# Plastics Interlaboratory Testing Program

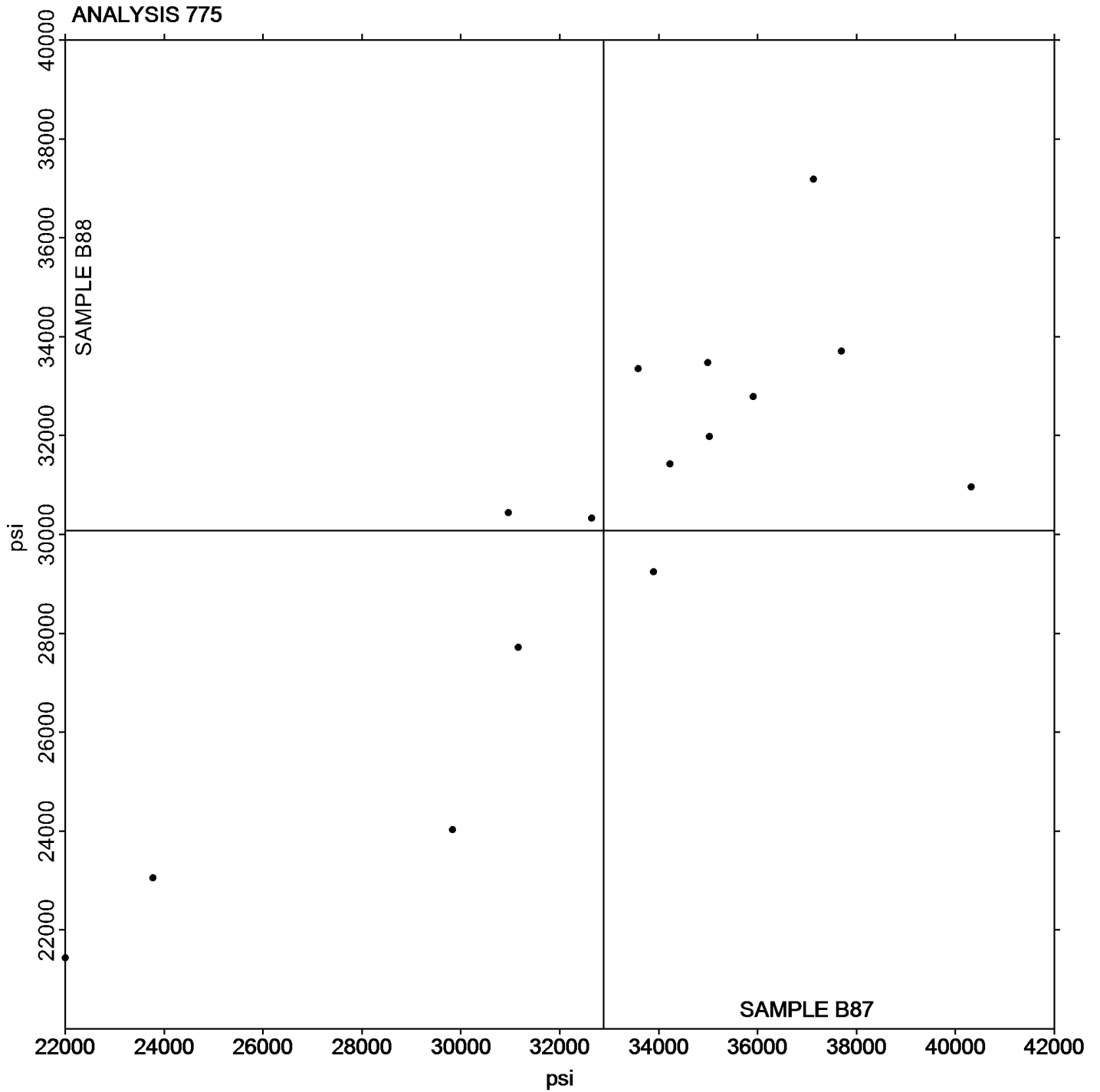
Report #124

## Analysis 775

4th Qtr 2022

Secant Modulus at 1% Strain - psi

Grand Mean Sample B87: 32,881.94 psi    Grand Mean Sample B88: 30,072.12 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 776

4th Qtr 2022

### Secant Modulus at 2% Strain - psi

WebCode	Data Flag	Sample B87			Sample B88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		27,147	-1,092	-0.42	26,471	469	0.22	MT
3TKPMQ		22,868	-5,370	-2.05	22,116	-3,886	-1.86	IN
3ZZNXW		30,660	2,422	0.93	28,170	2,168	1.04	IN
72X2ZD		26,668	-1,571	-0.60	24,668	-1,334	-0.64	IN
7K2K9N		28,360	121	0.05	26,203	201	0.10	IM
A9DMUJ		28,857	619	0.24	24,957	-1,044	-0.50	LI
EB4KAM		29,272	1,034	0.39	27,650	1,648	0.79	WZ
EJV2YR		29,376	1,137	0.43	27,347	1,345	0.64	IN
JNPNDM		29,940	1,702	0.65	24,120	-1,882	-0.90	TO
JP8K2F		27,800	-439	-0.17	29,038	3,036	1.45	SH
NEN27X		30,870	2,631	1.01	28,327	2,326	1.11	MT
T8EWNN		31,539	3,301	1.26	25,503	-499	-0.24	XX
YBYVPZ	X	45,760	17,521	6.69	43,541	17,539	8.40	WZ
YKJ7W7		23,743	-4,496	-1.72	23,453	-2,549	-1.22	SH

#### Summary Statistics

	Sample B87	Sample B88
<b>Grand Means</b>	28,238.4 psi	26,001.7 psi
<b>Stnd Dev Btwn Labs</b>	2,617.9 psi	2,089.1 psi

Statistics based on 13 of 14 reporting participants

Sample B87: LDPE & Sample B88: LDPE

#### Comments on Assigned Data Flags for Test #776

YBYVPZ (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

#### Key to Instrument Codes Reported by Participants

IM	Instru-Met Instruments	IN	Instron
LI	Lloyd Instruments	MT	MTS/Sintech
SH	Shimadzu	TO	Tinius Olsen
WZ	Zwick	XX	Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

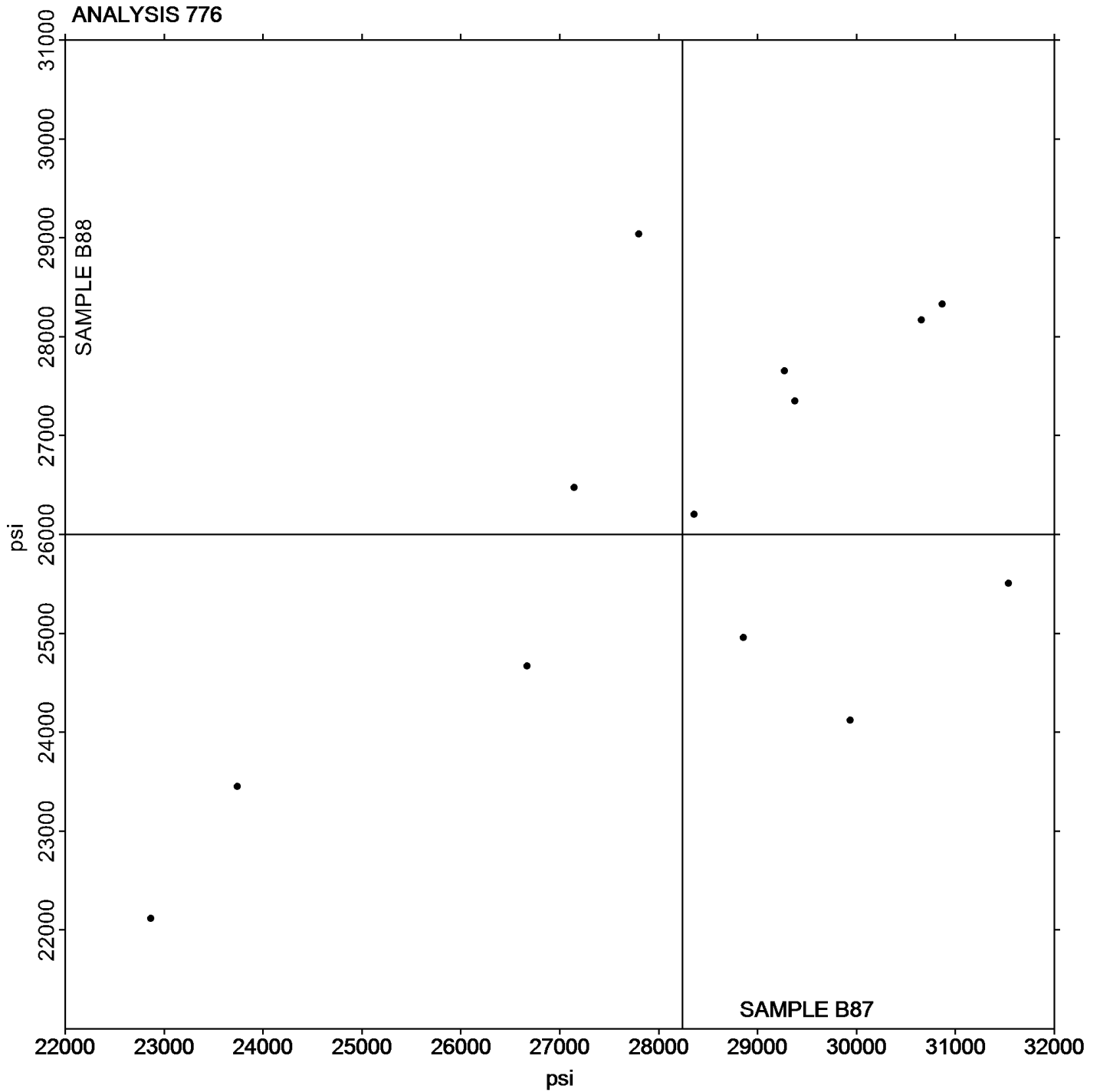
Report #124

## Analysis 776

4th Qtr 2022

Secant Modulus at 2% Strain - psi

Grand Mean Sample B87: 28,238.41 psi    Grand Mean Sample B88: 26,001.72 psi



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 780

4th Qtr 2022

### Coefficient of Static Friction

WebCode	Data Flag	Sample P87			Sample P88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		0.1982	0.0385	1.23	0.2480	0.0546	1.55	MI
3ZZNXW		0.1368	-0.0229	-0.73	0.1612	-0.0322	-0.92	TH
7K2K9N		0.1680	0.0083	0.26	0.1840	-0.0094	-0.27	MS
8KR4MU		0.1350	-0.0247	-0.79	0.1974	0.0040	0.11	TN
B67RLB		0.2278	0.0681	2.18	0.2420	0.0486	1.38	IG
EJV2YR		0.1636	0.0039	0.12	0.2464	0.0530	1.51	TM
HLRTC9		0.1532	-0.0065	-0.21	0.1565	-0.0369	-1.05	IG
JMFLQN		0.1136	-0.0461	-1.47	0.1782	-0.0152	-0.43	TH
JNPNDM		0.1324	-0.0273	-0.87	0.1328	-0.0606	-1.73	RD
JP8K2F		0.2028	0.0431	1.38	0.2240	0.0306	0.87	SA
NA2TFE		0.1340	-0.0257	-0.82	0.1650	-0.0284	-0.81	IS
PLHJ2L		0.1482	-0.0115	-0.37	0.1736	-0.0198	-0.56	DY
T3KXDZ		0.1424	-0.0173	-0.55	0.2096	0.0162	0.46	XX
XUQPBV		0.1818	0.0221	0.71	0.1790	-0.0144	-0.41	LI
YBYVPZ		0.1580	-0.0017	-0.05	0.2040	0.0106	0.30	SA

#### Summary Statistics

	Sample P87	Sample P88
<b>Grand Means</b>	0.15972 COF	0.19345 COF
<b>Std Dev Btwn Labs</b>	0.03127 COF	0.03513 COF

Statistics based on 15 of 15 reporting participants

Sample P87: LDPE & Sample P88: LDPE

#### Key to Instrument Codes Reported by Participants

DY	Dynisco Model D1055	IG	Instron
IS	Instron 5000 Series	LI	Lloyd Instruments
MI	MTS Insight	MS	MTS
RD	RDM CF	SA	Shimadzu Autograph
TH	Thwing Albert Friction/Peel Tester Model 225-1	TM	TMI Slip and Friction Tester
TN	TMI #32-06	XX	Instrument make/model not specified by lab



# Plastics Interlaboratory Testing Program

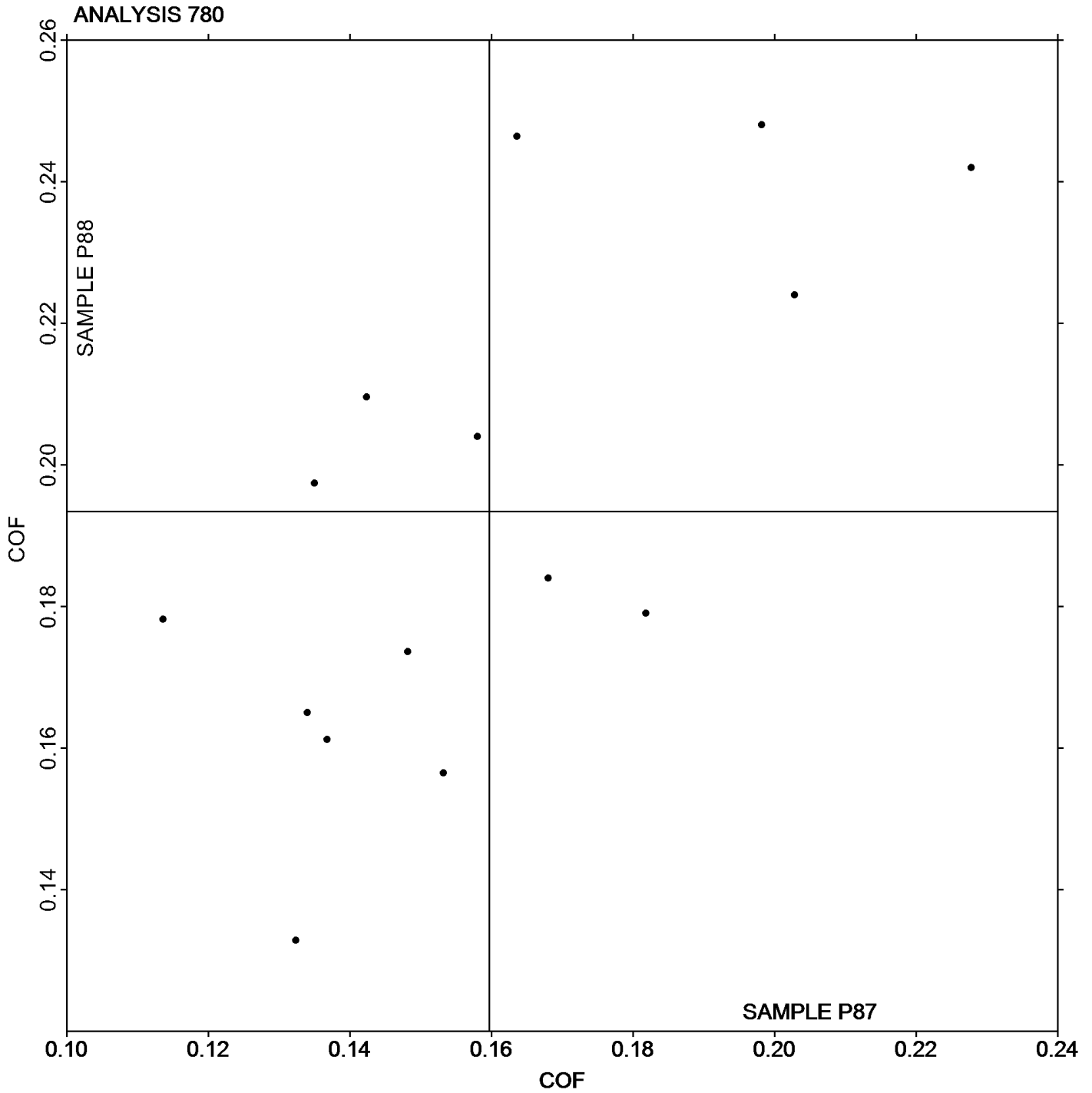
## Analysis 780

### Coefficient of Static Friction

Report #124

4th Qtr 2022

Grand Mean Sample P87: 0.15972 COF    Grand Mean Sample P88: 0.19345 COF





**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 781**

**4th Qtr 2022**

**Coefficient of Kinetic Friction**

WebCode	Data Flag	Sample P87			Sample P88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		0.0996	-0.0071	-0.21	0.1574	0.0114	0.42	MI
3ZZNXW		0.1214	0.0147	0.44	0.1476	0.0016	0.06	TH
7K2K9N		0.1340	0.0273	0.81	0.1440	-0.0020	-0.07	MS
8KR4MU		0.1056	-0.0011	-0.03	0.1410	-0.0050	-0.18	TN
B67RLB		0.1882	0.0815	2.42	0.1912	0.0452	1.66	IG
EJV2YR		0.0770	-0.0297	-0.88	0.1404	-0.0056	-0.20	TM
HLRTC9		0.0892	-0.0175	-0.52	0.1025	-0.0435	-1.60	IG
JMFLQN		0.0538	-0.0529	-1.57	0.1380	-0.0080	-0.29	TH
JNPNDM		0.1184	0.0117	0.35	0.1222	-0.0238	-0.87	RD
JP8K2F		0.1096	0.0029	0.09	0.1387	-0.0073	-0.27	SA
NA2TFE		0.0624	-0.0443	-1.31	0.1214	-0.0246	-0.90	IS
PLHJ2L		0.0982	-0.0085	-0.25	0.1770	0.0310	1.14	DY
T3KXDZ		0.1392	0.0325	0.97	0.2048	0.0588	2.16	XX
XUQPBV		0.1236	0.0169	0.50	0.1234	-0.0226	-0.83	XX
YBYVPZ		0.0800	-0.0267	-0.79	0.1400	-0.0060	-0.22	SA

Summary Statistics		Sample P87	Sample P88
<b>Grand Means</b>		0.10668 COF	0.14597 COF
<b>Std Dev Btw Labs</b>		0.03368 COF	0.02723 COF
Statistics based on 15 of 15 reporting participants			

Sample P87: LDPE & Sample P88: LDPE

**Key to Instrument Codes Reported by Participants**

DY	Dynisco Model D1055	IG	Instron
IS	Instron 5000 Series	MI	MTS Insight
MS	MTS	RD	RDM CF
SA	Shimadzu Autograph	TH	Thwing Albert Friction/Peel Tester Model 225-1
TM	TMI Slip and Friction Tester	TN	TMI #32-06
XX	Instrument make/model not specified by lab		





# Plastics Interlaboratory Testing Program

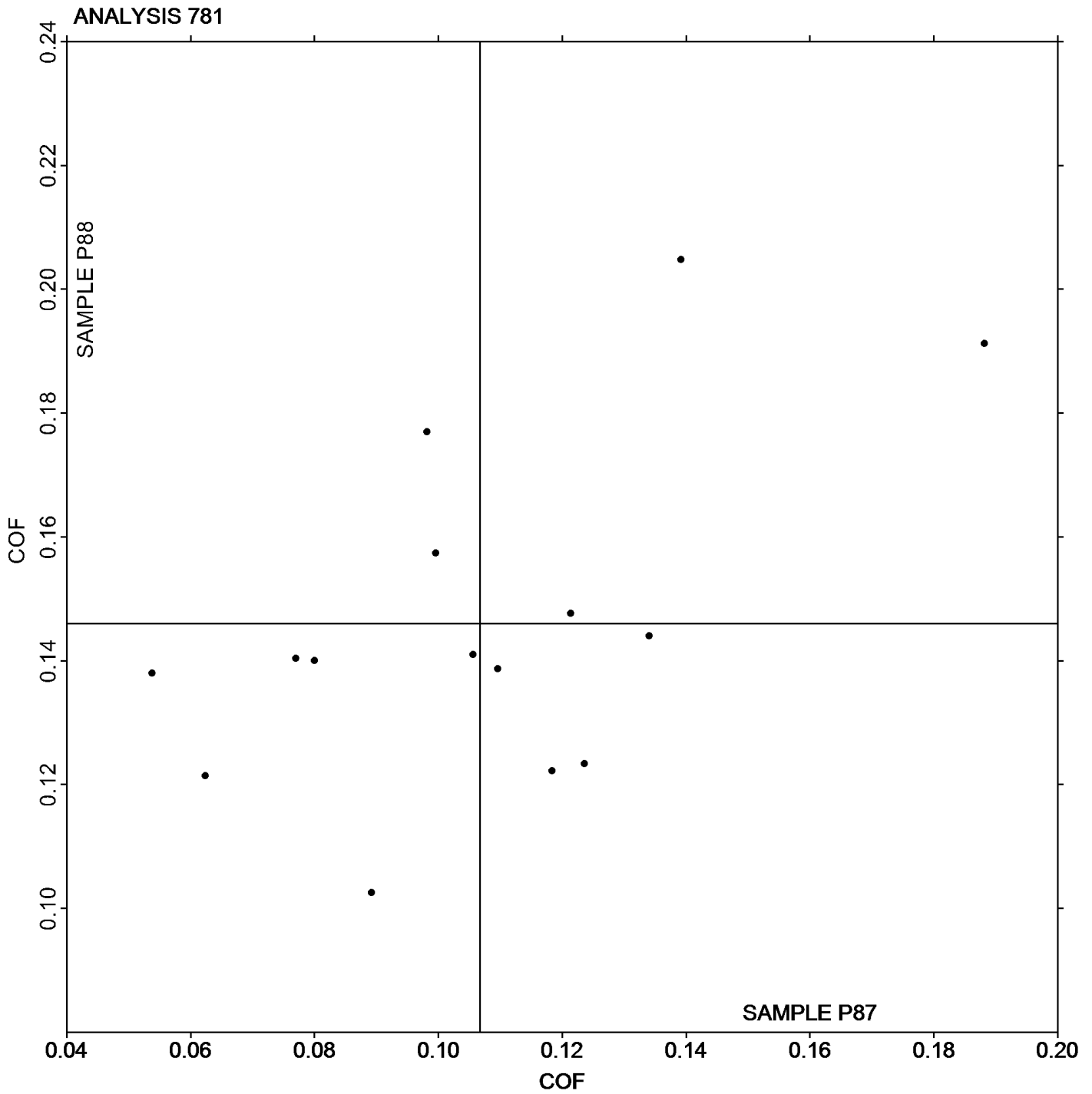
Analysis 781

Coefficient of Kinetic Friction

Report #124

4th Qtr 2022

Grand Mean Sample P87: 0.10668 COF    Grand Mean Sample P88: 0.14597 COF



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 782

4th Qtr 2022

### Tear Resistance of Films

WebCode	Data Flag	Sample Q87			Sample Q88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		322.0	-9.3	-0.14	304.3	-19.8	-0.32	TE
3ZZNXW		303.1	-28.2	-0.42	262.5	-61.6	-0.99	TE
7K2K9N		440.3	109.0	1.61	300.5	-23.6	-0.38	EM
EJV2YR		252.4	-78.9	-1.16	468.8	144.7	2.31	TM
JMFLQN		293.8	-37.6	-0.55	289.6	-34.5	-0.55	TA
JP8K2F		320.9	-10.4	-0.15	327.6	3.5	0.06	TE
NEN27X		291.4	-39.9	-0.59	286.2	-37.9	-0.61	TA
PLHJ2L		463.4	132.1	1.95	395.0	70.9	1.13	TA
Y68RDM		337.3	6.0	0.09	326.1	2.0	0.03	SZ
YBYVPZ		288.8	-42.6	-0.63	280.6	-43.5	-0.70	LO

#### Summary Statistics

##### Grand Means

##### Sample Q87

331.35 grams-force

##### Sample Q88

324.12 grams-force

##### Std Dev Btwn Labs

67.82 grams-force

62.58 grams-force

Statistics based on 10 of 10 reporting participants

Sample Q87: LDPE & Sample Q88: LDPE

#### Key to Instrument Codes Reported by Participants

EM Elmendorf Tear Tester  
 SZ Textest FX 3700  
 TE Thwing-Albert Pro Tear

LO Lorentzen & Wettre Model II  
 TA Thwing-Albert  
 TM TMI No. 83-1100



# Plastics Interlaboratory Testing Program

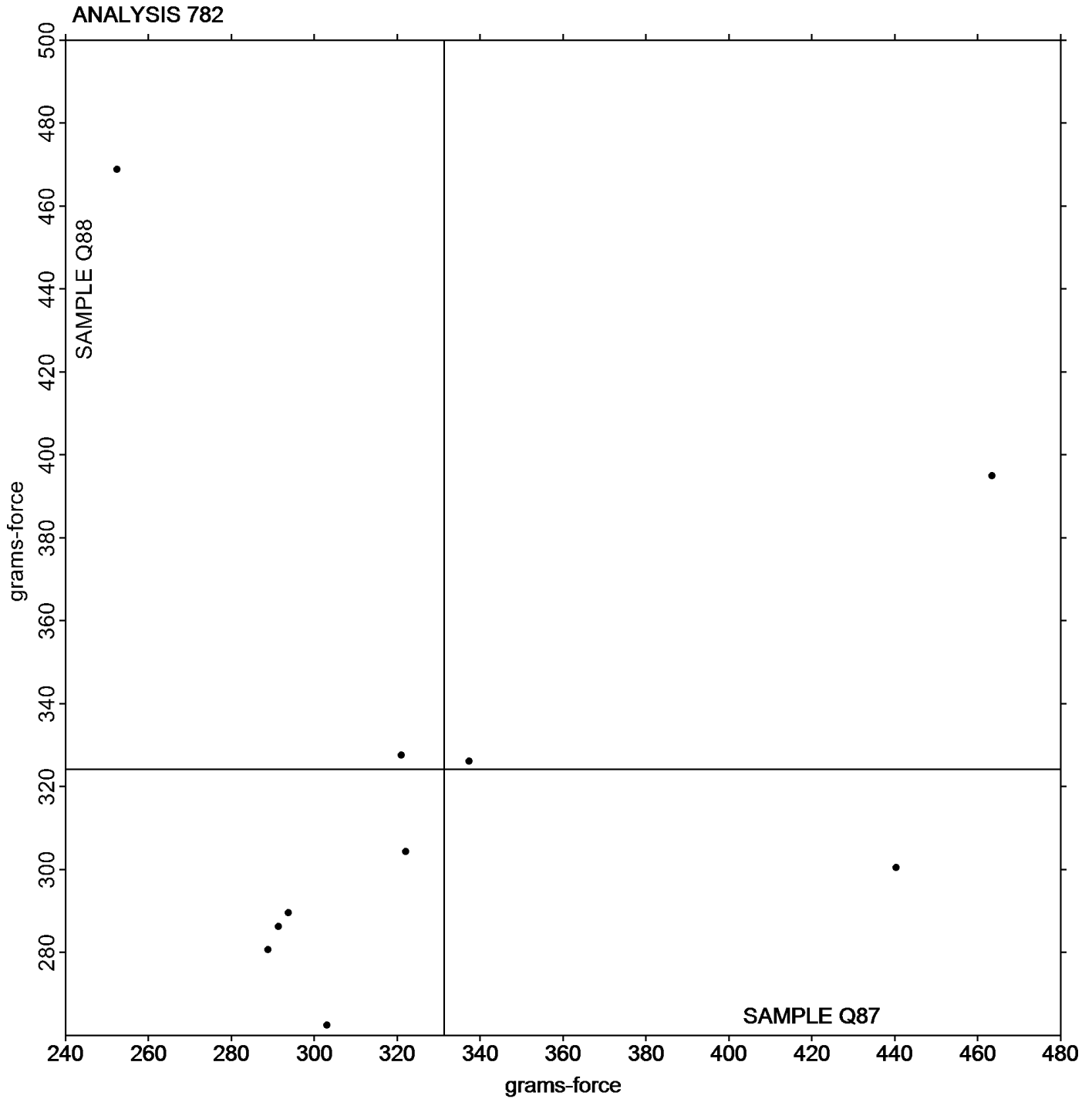
## Analysis 782

### Tear Resistance of Films

Report #124

4th Qtr 2022

Grand Mean Sample Q87: 331.35 grams-force    Grand Mean Sample Q88: 324.12 grams-force



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 785**

**4th Qtr 2022**

**Percent Haze of Film**

WebCode	Data Flag	Sample D87			Sample D88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		25.175	-0.066	-0.06	18.550	-0.158	-0.20	BJ
3ZZNXW		25.463	0.221	0.19	18.475	-0.233	-0.30	BJ
46CP3Z		25.225	-0.016	-0.01	18.863	0.154	0.20	BJ
4PC2EE		25.400	0.159	0.14	18.975	0.267	0.34	BJ
63ZHPX		25.234	-0.007	-0.01	18.541	-0.167	-0.21	BJ
7K2K9N		25.575	0.334	0.29	18.250	-0.458	-0.58	BJ
9W286A		22.463	-2.779	-2.39	17.725	-0.983	-1.25	HL
AK84JV		23.940	-1.301	-1.12	17.689	-1.019	-1.30	HL
B4WV3R		26.453	1.211	1.04	19.329	0.621	0.79	XR
HAH68H		24.975	-0.266	-0.23	19.288	0.579	0.74	BJ
HQJW6C		25.100	-0.141	-0.12	19.775	1.067	1.36	BJ
JMFLQN		27.125	1.884	1.62	19.588	0.879	1.12	BJ
JP8K2F		25.975	0.734	0.63	18.513	-0.196	-0.25	BJ
L8DWL2		23.753	-1.489	-1.28	17.370	-1.338	-1.71	XX
MTDCLP		24.600	-0.641	-0.55	18.525	-0.183	-0.23	BJ
NA2TFE		25.550	0.309	0.27	18.863	0.154	0.20	BJ
PLHJ2L		25.285	0.044	0.04	19.863	1.154	1.47	XR
RLF9L9		26.188	0.946	0.81	18.794	0.086	0.11	BJ
RMUTCX		27.995	2.754	2.37	20.004	1.296	1.65	XR
T3XXPZ		24.838	-0.404	-0.35	19.608	0.899	1.15	BJ
TKC49J		25.075	-0.166	-0.14	18.500	-0.208	-0.27	BJ
TLDY93		25.375	0.134	0.12	18.700	-0.008	-0.01	BJ
XDF7FN		22.981	-2.260	-1.95	16.818	-1.891	-2.41	XR
Y68RDM		26.013	0.771	0.66	18.950	0.242	0.31	BJ
YEA2UK		25.275	0.034	0.03	18.150	-0.558	-0.71	BJ

Summary Statistics		
	Sample D87	Sample D88
<b>Grand Means</b>	25.2411 Percent	18.7081 Percent
<b>Stnd Dev Btwn Labs</b>	1.1613 Percent	0.7840 Percent
Statistics based on 25 of 25 reporting participants		

Sample D87: LDPE & Sample D88: LDPE



# Plastics Interlaboratory Testing Program

## Analysis 785

### Percent Haze of Film

Report #124

4th Qtr 2022

#### Key to Instrument Codes Reported by Participants

**BJ** BYK-Gardner Haze-Gard Plus/i

**HL** Hunterlab Ultrascan

**XR** X-Rite Spectrocolorimeter (any model)

**XX** Instrument make/model not specified by lab



# Plastics Interlaboratory Testing Program

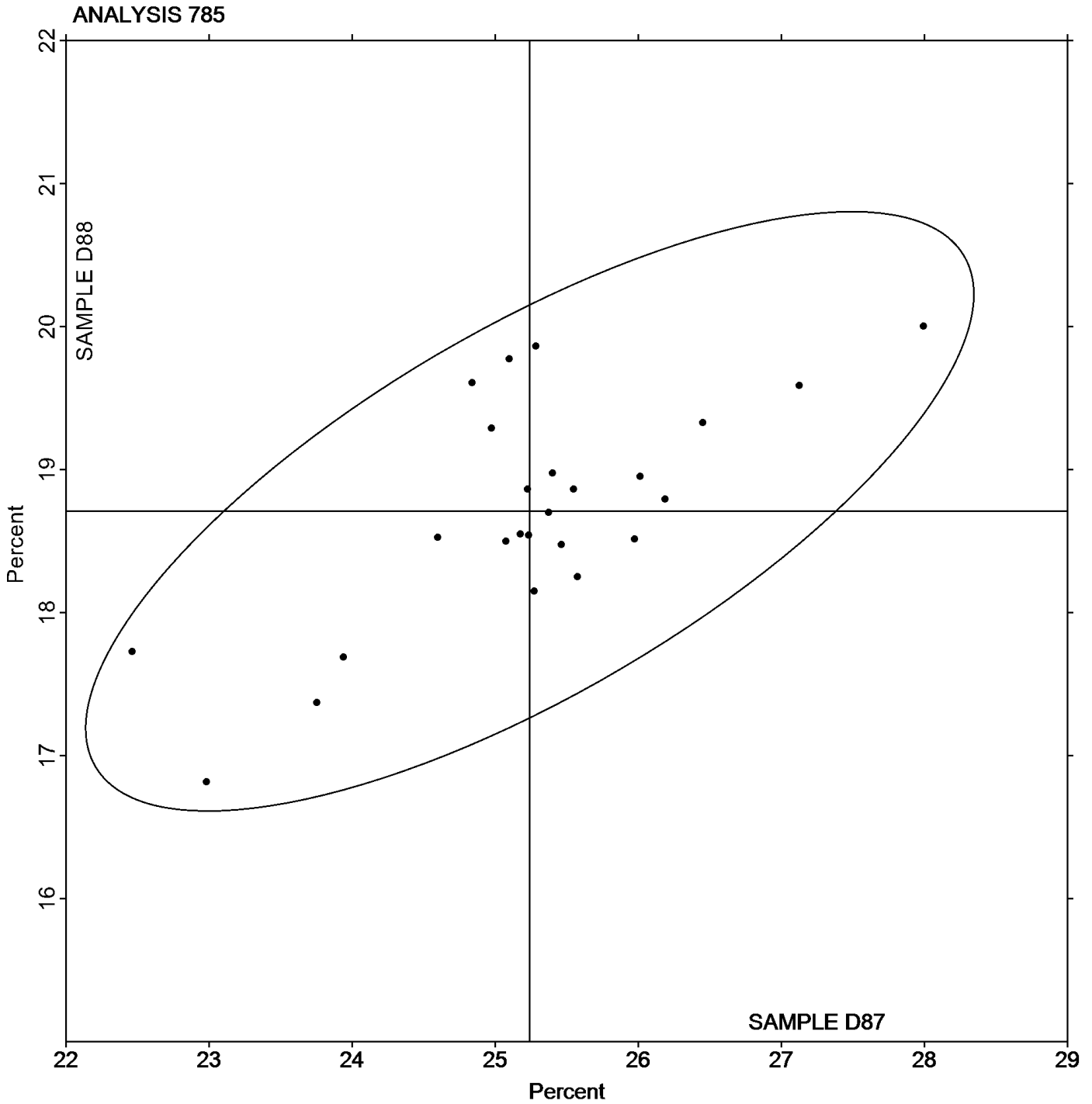
Analysis 785

Percent Haze of Film

Report #124

4th Qtr 2022

Grand Mean Sample D87: 25.241 Percent    Grand Mean Sample D88: 18.708 Percent





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 786

4th Qtr 2022

### Total Luminous transmittance of film

WebCode	Data Flag	Sample D87			Sample D88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		92.70	-0.03	-0.03	92.68	-0.04	-0.03	BJ
46CP3Z		93.54	0.81	0.77	93.43	0.71	0.68	BJ
4PC2EE		92.66	-0.06	-0.06	92.74	0.03	0.03	BJ
63ZHPX		93.68	0.96	0.91	93.80	1.09	1.03	BJ
7K2K9N		93.49	0.76	0.72	93.23	0.51	0.49	BJ
9W286A		90.25	-2.48	-2.35	90.39	-2.32	-2.21	HL
AK84JV		90.34	-2.39	-2.27	90.51	-2.20	-2.09	HL
B4WV3R		92.12	-0.61	-0.58	92.10	-0.61	-0.58	XR
HAH68H		93.20	0.47	0.45	93.39	0.68	0.64	BJ
HQJW6C		93.59	0.86	0.82	93.73	1.01	0.97	BJ
JMFLQN		93.33	0.60	0.57	93.49	0.78	0.74	BJ
JP8K2F		92.59	-0.14	-0.13	92.71	0.00	0.00	BJ
L8DWL2		91.79	-0.94	-0.89	91.38	-1.34	-1.27	XX
NA2TFE		94.40	1.67	1.59	94.29	1.58	1.50	BJ
RLF9L9		93.24	0.51	0.49	93.28	0.56	0.54	BJ
RMUTCX		92.16	-0.57	-0.54	91.94	-0.77	-0.73	XR
T3XXPZ		92.87	0.14	0.13	92.88	0.17	0.16	BJ
TKC49J		93.91	1.19	1.12	93.74	1.03	0.98	BJ
TLDY93		92.15	-0.58	-0.55	92.19	-0.52	-0.50	BJ
XDF7FN		91.76	-0.97	-0.92	91.51	-1.20	-1.15	XR
Y68RDM		92.71	-0.01	-0.01	92.83	0.11	0.11	BJ
YEA2UK		93.54	0.81	0.77	93.44	0.73	0.69	BJ

#### Summary Statistics

	Sample D87	Sample D88
<b>Grand Means</b>	92.727 Percent	92.710 Percent
<b>Std Dev Btwn Labs</b>	1.054 Percent	1.051 Percent
Statistics based on 22 of 22 reporting participants		

Sample D87: LDPE & Sample D88: LDPE

#### Key to Instrument Codes Reported by Participants

<b>BJ</b> BYK-Gardner Haze-Gard Plus/i	<b>HL</b> Hunterlab Ultrascan XE
<b>XR</b> X-Rite Spectrocolorimeter (any model)	<b>XX</b> Instrument make/model not specified by lab



# Plastics Interlaboratory Testing Program

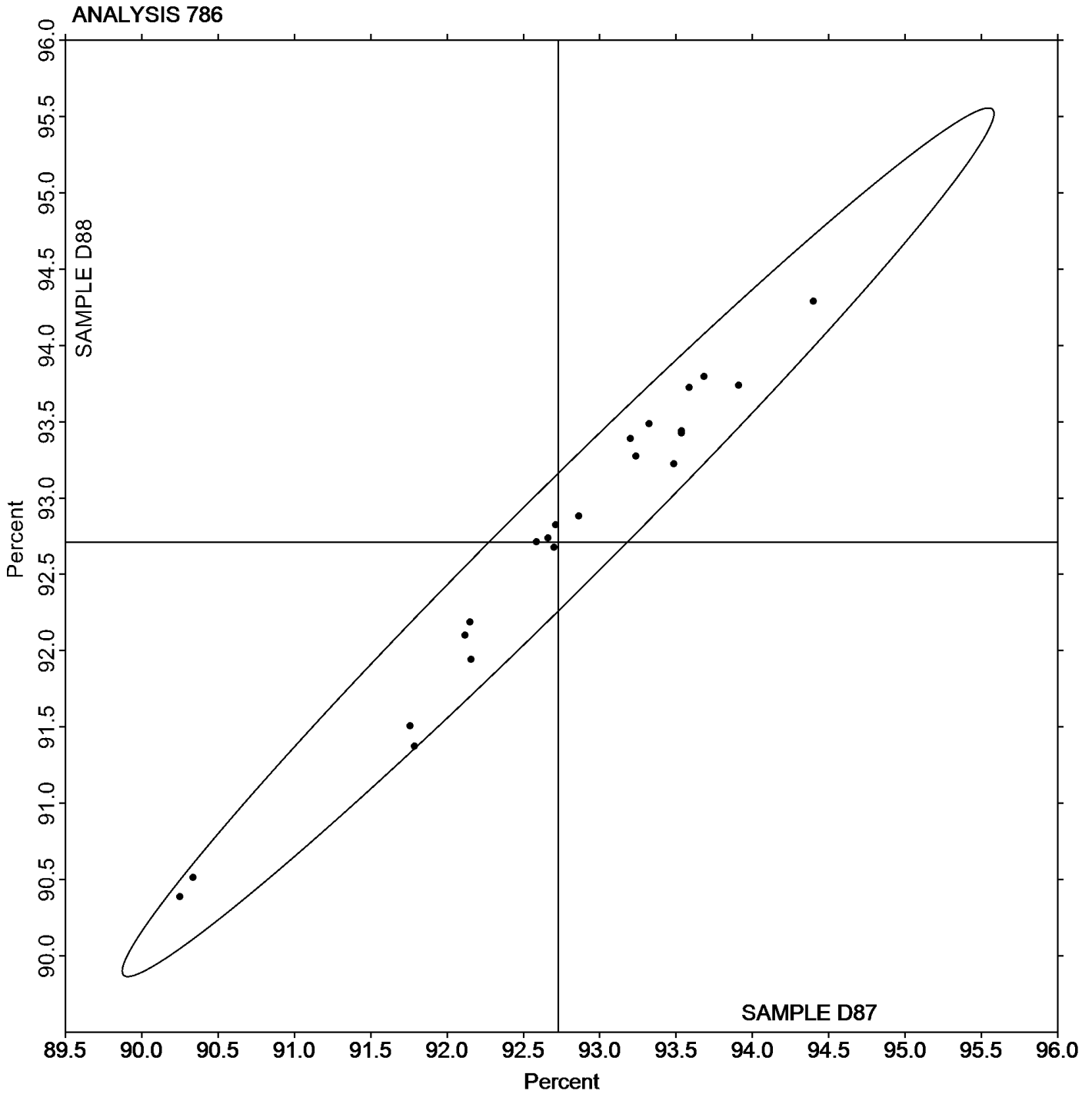
## Analysis 786

Total Luminous transmittance of film

Report #124

4th Qtr 2022

Grand Mean Sample D87: 92.727 Percent    Grand Mean Sample D88: 92.710 Percent







# Plastics Interlaboratory Testing Program

Report #124

## Analysis 790

4th Qtr 2022

### Notched Izod Impact - ft.lbf/in

WebCode	Data Flag	Sample S87			Sample S88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3RQ26V		10.69	0.11	0.16	11.28	0.66	0.96	TO
3XU8HD		9.82	-0.76	-1.13	10.02	-0.60	-0.88	BA
3ZZNXW		10.46	-0.12	-0.18	10.32	-0.30	-0.44	CE
4H97AL		9.17	-1.41	-2.11	9.16	-1.46	-2.13	TM
4MR3CH		10.38	-0.20	-0.31	10.70	0.08	0.12	TO
4PC2EE		10.98	0.40	0.60	10.90	0.28	0.41	CE
4Y7ZE2		10.57	-0.01	-0.02	10.64	0.02	0.03	CE
6232KN	*	11.30	0.72	1.08	12.08	1.46	2.13	TO
667X3V		10.16	-0.42	-0.63	9.94	-0.68	-0.99	TM
6NGVFZ		10.39	-0.19	-0.28	10.42	-0.20	-0.30	CE
6ZVU9M		10.10	-0.48	-0.72	10.17	-0.45	-0.66	TO
74W47V	*	10.65	0.07	0.11	11.44	0.82	1.19	XX
8KR4MU		9.98	-0.60	-0.90	9.93	-0.69	-1.01	TM
AUTACT	X	11.05	0.47	0.70	9.27	-1.35	-1.97	RR
CP8CUF		10.94	0.36	0.54	10.90	0.28	0.41	XX
D4NMZH		11.39	0.81	1.22	11.15	0.53	0.77	CS
ED8HC3		10.38	-0.20	-0.30	10.53	-0.09	-0.13	CE
EK9UAK		10.61	0.03	0.04	10.37	-0.25	-0.36	DS
EL2RHR		9.06	-1.52	-2.28	9.04	-1.58	-2.31	TO
F36D78		11.95	1.37	2.06	12.22	1.60	2.33	TO
F67MPN		10.03	-0.55	-0.82	9.99	-0.63	-0.92	TO
F6PBA6		11.29	0.71	1.07	11.02	0.40	0.58	XX
HB97BK	X	7.17	-3.41	-5.12	9.09	-1.53	-2.23	TO
JLPBXA		10.07	-0.51	-0.77	9.84	-0.78	-1.13	TO
JMFLQN		10.19	-0.39	-0.59	10.29	-0.33	-0.48	WZ
JQHJZV		10.61	0.03	0.05	10.76	0.13	0.20	WZ
K8LD7V		10.28	-0.30	-0.45	10.48	-0.14	-0.20	WZ
KB27WN		11.27	0.69	1.04	11.05	0.43	0.62	TM
KPHW3H		10.68	0.10	0.15	10.86	0.24	0.35	TO
KZYNLL		9.09	-1.49	-2.24	9.27	-1.35	-1.97	CE
L6QAUZ		10.27	-0.31	-0.46	10.28	-0.34	-0.50	TO
LEYQHY		11.77	1.19	1.79	11.73	1.11	1.62	CE
LXQXTB		10.19	-0.39	-0.58	10.42	-0.20	-0.29	TO
MDY4KL		10.68	0.10	0.15	10.81	0.19	0.28	WZ
ME8GTM	X	13.38	2.80	4.20	12.59	1.97	2.87	CS



**Plastics Interlaboratory Testing Program**

**Report #124**

**Analysis 790**

**4th Qtr 2022**

**Notched Izod Impact - ft.lbf/in**

WebCode	Data Flag	Sample S87			Sample S88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
NEN27X		11.68	1.10	1.65	11.65	1.03	1.50	WZ
PC2RK4		10.25	-0.33	-0.49	10.47	-0.15	-0.23	TO
Q9DH7V	X	1.36	-9.22	-13.82	1.37	-9.25	-13.48	TO
RLF9L9		10.75	0.17	0.25	10.87	0.25	0.37	TY
TLDY93		11.01	0.43	0.64	10.68	0.06	0.08	WZ
UB9F3R		11.76	1.18	1.77	11.30	0.68	0.99	TM
X8WUP3		10.60	0.02	0.02	10.30	-0.32	-0.46	TO
X9B4UW		10.66	0.08	0.12	10.30	-0.32	-0.47	WZ
XE2BHW		11.26	0.68	1.03	11.09	0.47	0.69	WZ
YBUHXW		10.80	0.22	0.34	10.83	0.21	0.30	TO
ZC4YFT		9.99	-0.59	-0.89	10.20	-0.42	-0.61	TO
ZXLERT		10.78	0.20	0.30	10.99	0.37	0.54	CE

Summary Statistics		
	Sample S87	Sample S88
<b>Grand Means</b>	10.580 ft.lbf/in	10.621 ft.lbf/in
<b>Std Dev Btwn Labs</b>	0.667 ft.lbf/in	0.686 ft.lbf/in
Statistics based on 43 of 47 reporting participants		

Sample S87: ABS/PC & Sample S88: ABS/PC

**Comments on Assigned Data Flags for Test #790**

- Q9DH7V (X) - Data for both samples are low.
- HB97BK (X) - Data for sample S87 are low. Inconsistent within the determinations of sample S87.
- AUTACT (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample S88.
- ME8GTM (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

**Key to Instrument Codes Reported by Participants**

BA Baldwin	CE Ceast
CS CSI	DS Dynisco
RR Ray-Ran Polymer Testing Equipment	TM TMI
TO Tinius Olsen	TY Toyoseiki
WZ Zwick	XX Instrument manufacturer not specified by lab



# Plastics Interlaboratory Testing Program

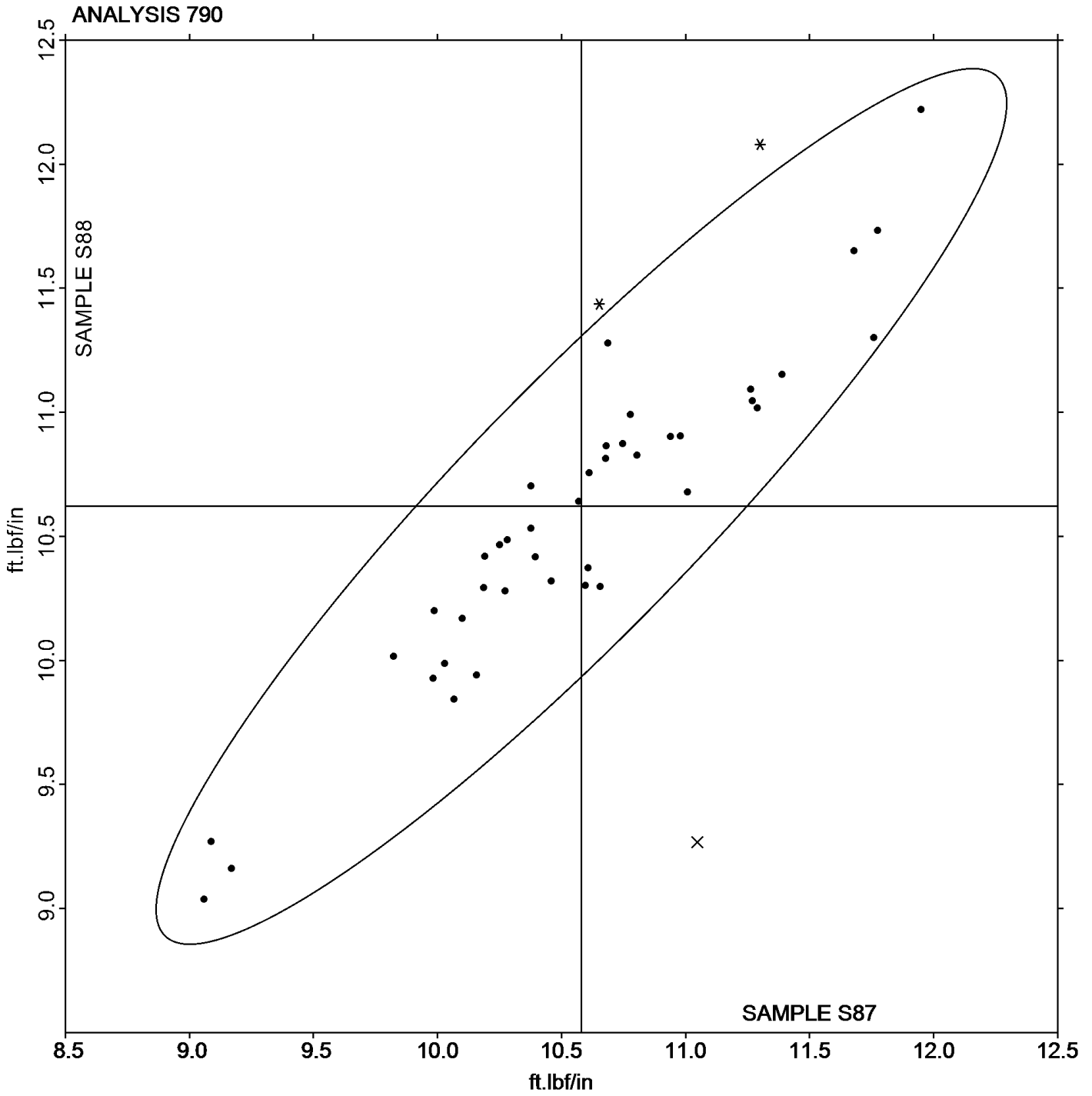
## Analysis 790

### Notched Izod Impact - ft.lbf/in

Report #124

4th Qtr 2022

Grand Mean Sample S87: 10.580 ft.lbf/in    Grand Mean Sample S88: 10.621 ft.lbf/in





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 791

4th Qtr 2022

### Notched Izod Impact - kJ/m<sup>2</sup>

WebCode	Data Flag	Sample Z87			Sample Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2JXHD2		48.00	1.99	1.02	45.70	-0.08	-0.03	IN
3RQ26V		45.79	-0.22	-0.11	46.25	0.47	0.21	XX
3ZZNXW		46.14	0.13	0.07	46.78	1.00	0.45	CE
4XQX8R		45.33	-0.68	-0.35	44.43	-1.36	-0.61	CE
667X3V		46.35	0.34	0.18	46.17	0.39	0.17	TM
74W47V		46.60	0.59	0.30	46.14	0.36	0.16	XX
7BBZ3P		43.56	-2.44	-1.26	43.05	-2.73	-1.22	CE
9QAZKF		46.91	0.90	0.47	44.40	-1.38	-0.62	TO
AEEDNJ		47.04	1.03	0.53	46.20	0.42	0.19	IN
AK84JV		44.93	-1.08	-0.55	44.64	-1.14	-0.51	TM
B8E43C		44.79	-1.22	-0.63	45.94	0.16	0.07	XX
CP8CUF		44.82	-1.19	-0.61	44.98	-0.80	-0.36	XX
DQWXZC	*	42.90	-3.11	-1.60	39.68	-6.11	-2.74	CE
F7PCDB		47.78	1.77	0.91	46.63	0.84	0.38	XX
GQPXKK		48.17	2.16	1.11	48.52	2.74	1.23	CE
H3GUD7		47.82	1.81	0.93	48.73	2.95	1.32	CE
JCYDYG		47.47	1.47	0.76	48.66	2.88	1.29	CE
JQHJZV		43.82	-2.19	-1.13	44.07	-1.71	-0.77	WZ
K8LD7V		46.62	0.61	0.32	46.75	0.96	0.43	WZ
KXLAJK		48.17	2.16	1.11	48.46	2.68	1.20	TO
LDKKZN		45.19	-0.81	-0.42	44.86	-0.93	-0.41	TM
MRHML3		49.61	3.60	1.86	50.49	4.71	2.11	CE
MVVRFPP		42.02	-3.99	-2.06	42.29	-3.49	-1.57	CE
PQYHZA	*	50.88	4.87	2.51	48.30	2.52	1.13	TO
QDA3CZ		43.86	-2.15	-1.11	43.74	-2.04	-0.91	CE
RLF9L9		46.29	0.28	0.15	46.03	0.25	0.11	XX
RY8T77		44.98	-1.03	-0.53	44.92	-0.86	-0.39	TO
TQLG7A		44.56	-1.44	-0.74	42.77	-3.01	-1.35	CE
TT7A2K		45.38	-0.63	-0.32	48.11	2.33	1.04	CE
UNBVYV	X	60.34	14.33	7.39	58.52	12.74	5.71	WZ
VNDT24		44.69	-1.32	-0.68	45.62	-0.16	-0.07	WZ
XK6JJX		45.78	-0.23	-0.12	45.92	0.14	0.06	WZ



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 791

4th Qtr 2022

### Notched Izod Impact - kJ/m<sup>2</sup>

Summary Statistics		
	<u>Sample Z87</u>	<u>Sample Z88</u>
<b>Grand Means</b>	46.008 kJ/m <sup>2</sup>	45.782 kJ/m <sup>2</sup>
<b>Stnd Dev Btwn Labs</b>	1.940 kJ/m <sup>2</sup>	2.232 kJ/m <sup>2</sup>
Statistics based on 31 of 32 reporting participants		

Sample Z87: ABS/PC & Sample Z88: ABS/PC

#### **Comments on Assigned Data Flags for Test #791**

UNBVV (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample Z87.

#### **Key to Instrument Codes Reported by Participants**

CE Ceast

IN Instron

TM TMI

TO Tinius Olsen

WZ Zwick

XX Instrument manufacturer not specified by lab





# Plastics Interlaboratory Testing Program

Report #124

## Analysis 792

4th Qtr 2022

### Notched Charpy Impact - kJ/m<sup>2</sup>

WebCode	Data Flag	Sample M87			Sample M88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
27MZH Z		49.68	0.01	0.00	49.75	-0.18	-0.03	CE
2ENBMX	X	54.32	4.66	0.87	61.53	11.61	2.01	CE
2JXHD2		49.30	-0.36	-0.07	50.56	0.64	0.11	IN
3FT8NR		50.36	0.69	0.13	50.33	0.40	0.07	CE
3RQ26V		51.24	1.58	0.29	53.97	4.04	0.70	XX
3ZK7XW		53.52	3.86	0.72	53.45	3.53	0.61	WZ
3ZZNXW	X	64.88	15.22	2.83	55.38	5.46	0.95	CE
4XQX8R		49.37	-0.29	-0.05	48.30	-1.62	-0.28	CE
4Y7ZE2		48.83	-0.84	-0.16	48.64	-1.28	-0.22	CE
74W47V		38.58	-11.08	-2.06	38.42	-11.50	-2.00	XX
7B7MBM	X	57.38	7.71	1.43	64.36	14.44	2.50	CE
7K2K9N		49.73	0.07	0.01	48.81	-1.12	-0.19	CE
9QAZKF		55.41	5.75	1.07	54.98	5.05	0.88	TO
AK84JV		49.54	-0.13	-0.02	50.86	0.93	0.16	TM
B8E43C	X	51.16	1.49	0.28	60.91	10.99	1.91	TM
CGPWVQ		45.72	-3.95	-0.73	45.93	-4.00	-0.69	WZ
CP8CUF		45.18	-4.48	-0.83	44.98	-4.94	-0.86	XX
DQWXZC		45.69	-3.97	-0.74	48.85	-1.07	-0.19	CE
ED8HC3		47.05	-2.61	-0.49	47.12	-2.80	-0.49	IN
EV98QK		46.82	-2.85	-0.53	44.50	-5.42	-0.94	TM
F36D78		58.79	9.13	1.70	57.84	7.92	1.37	TO
F6PBA6		50.48	0.82	0.15	50.56	0.64	0.11	XX
F7PCDB		49.68	0.02	0.00	48.60	-1.32	-0.23	WZ
FGN8B7		44.21	-5.46	-1.01	43.73	-6.19	-1.07	XX
H3GUD7		52.60	2.94	0.55	52.52	2.60	0.45	IN
JCY YDG	*	54.48	4.82	0.90	59.09	9.17	1.59	CE
JMFLQN		45.71	-3.95	-0.73	45.96	-3.96	-0.69	WZ
JQHJZV		47.60	-2.07	-0.38	47.72	-2.20	-0.38	WZ
K8LD7V		51.11	1.45	0.27	55.16	5.23	0.91	WZ
KAMJFF		43.95	-5.71	-1.06	43.68	-6.24	-1.08	CE
KXLAJK		51.85	2.19	0.41	52.79	2.87	0.50	TO
MRHML3	X	63.00	13.34	2.48	58.47	8.55	1.48	CE
MVV RFP		43.75	-5.91	-1.10	44.69	-5.23	-0.91	CE
PQYHZA	*	66.62	16.96	3.15	66.78	16.86	2.92	TO
QDA3CZ	X	24.02	-25.64	-4.77	24.74	-25.18	-4.37	CE



# Plastics Interlaboratory Testing Program

Report #124

## Analysis 792

4th Qtr 2022

### Notched Charpy Impact - kJ/m<sup>2</sup>

WebCode	Data Flag	Sample M87			Sample M88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
R8ADRK		49.80	0.14	0.03	50.09	0.17	0.03	WZ
RLF9L9		47.99	-1.67	-0.31	46.95	-2.97	-0.51	TY
RMPHCK		50.12	0.46	0.09	49.65	-0.27	-0.05	PO
RY8T77		46.90	-2.76	-0.51	49.14	-0.78	-0.14	TO
TLDY93		53.32	3.66	0.68	53.47	3.55	0.61	WZ
TQLG7A		44.39	-5.27	-0.98	44.47	-5.45	-0.95	CE
TT7A2K		46.10	-3.56	-0.66	47.64	-2.28	-0.40	CE
UNBVYV	*	65.72	16.06	2.98	68.00	18.08	3.14	WZ
VNDT24		45.60	-4.06	-0.75	44.48	-5.45	-0.94	WZ
WMTUYQ		59.11	9.44	1.76	57.65	7.73	1.34	CE
X8WUP3		46.23	-3.43	-0.64	43.45	-6.47	-1.12	TO
X9B4UW		44.21	-5.46	-1.01	44.27	-5.65	-0.98	WZ
XK6JJX		47.54	-2.12	-0.39	47.28	-2.64	-0.46	WZ
ZC4YFT		50.96	1.30	0.24	50.08	0.15	0.03	TO
ZPYJE4		50.27	0.61	0.11	51.43	1.51	0.26	WZ

#### Summary Statistics

	Sample M87	Sample M88
<b>Grand Means</b>	49.662 kJ/m <sup>2</sup>	49.923 kJ/m <sup>2</sup>
<b>Stnd Dev Btwn Labs</b>	5.380 kJ/m <sup>2</sup>	5.765 kJ/m <sup>2</sup>

Statistics based on 44 of 50 reporting participants

Sample M87: ABS/PC & Sample M88: ABS/PC

#### Comments on Assigned Data Flags for Test #792

- B8E43C (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample M88.
- MRHML3 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample M88.
- QDA3CZ (X) - Data for both samples are low. Possible Systematic Error.
- 3ZZNXW (X) - Data for sample M87 are high. Inconsistent within the determinations of sample M87.
- 7B7MBM (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- 2ENBMX (X) - Inconsistent in testing between samples.

#### Key to Instrument Codes Reported by Participants

CE	Ceast	IN	Instron
PO	POE	TM	TMI
TO	Tinius Olsen	TY	Toyoseiki
WZ	Zwick	XX	Instrument manufacturer not specified by lab





# Plastics Interlaboratory Testing Program

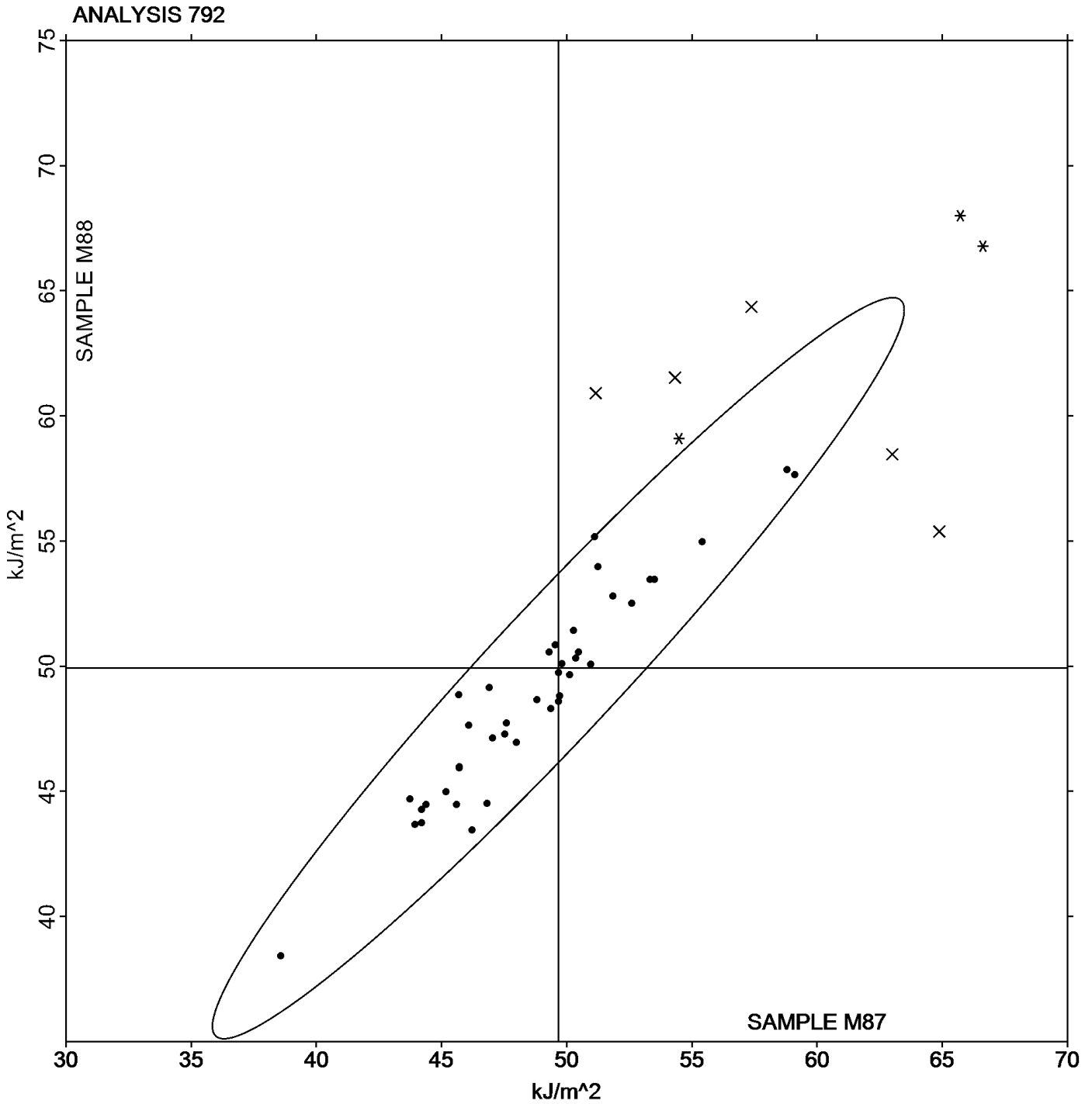
## Analysis 792

### Notched Charpy Impact - $\text{kJ/m}^2$

Report #124

4th Qtr 2022

Grand Mean Sample M87:  $49.662 \text{ kJ/m}^2$  Grand Mean Sample M88:  $49.923 \text{ kJ/m}^2$



-End of Report-