

Rubber Interlaboratory Testing Program

Summary Report #158- 4th Qtr 2008

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<u>Analysis</u>	<u>Analysis Name</u>
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606	Ultimate Elongation: Precured Rubber Samples
607	Stress at 300% Elongation: Precured Samples
608	Stress at 100% Elongation: Precured Samples
620	Hardness (Type A): Precured Rubber Samples
630	Tensile Strength: Participant-Cured Rubber
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660	Mooney Viscosity (4-minute readings)
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684	MDR Vulcanization Charac.: Cure Time 10%
685	MDR Vulcanization Charac.: Scorch Time, Ts1
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687	MDR Vulcanization Charac.: Cure Time 90%
688	MDR Vulcanization Charac.: Minimum Torque
689	MDR Vulcanization Charac.: Maximum Torque

ABOUT THE PROGRAM

The Collaborative Reference Program for RUBBER, which was initiated in 1969, is operated and maintained by Collaborative Testing Services, Inc. (CTS), with technical guidance provided by the Rubber Division of the American Chemical Society. 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 rubber testing proficiency.

For each test there are summary statistics 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. Please refer to the section KEY TO TABLES AND GRAPHS for an explanation of terms and guidelines to interpreting the results.

ABOUT CTS

Founded in 1971, CTS is a privately-owned company that specializes in interlaboratory tests for a wide variety of industrial sectors, including rubber, plastics, fasteners and metals, containerboard, paper and color, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. More than 2400 labs from the U.S., as well as more than 55 countries, currently participate in the CTS programs.

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WebCode	Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Rubber Report published on the CTS Web site. The WebCode for each analysis can be found in the Performance Analysis Report mailed to each participant.
Lab Mean	Tensile & Hardness: the average of the median values obtained for each sample. All other tests: the average of the test results obtained by the participant.
Grand Mean	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.
Difference from Grand Mean	The difference of the LAB MEAN from the GRAND MEAN.
Between-Lab Standard Deviation	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).
Comparative Performance Value	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.
Inst Code	If instruments are tracked in a test, a code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section).
Data Flag	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	CAUTION - 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	STOP - 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	PROCEED - lab was unable to report data for at least one sample. However, a lab receiving two of more M flags for a test may need to stop and review its testing procedures.

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 data usually vary by more than three standard deviations from the grand mean.) 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.
 5. **Data appeared to be off by a factor of # and was corrected by CTS** - In tests that involve computations, the results reported to CTS may be off by a factor. If this factor can easily be determined, CTS may correct the data and flag the participant. Occasionally CTS will correct a laboratory's results even though the data are still high or low when compared to the other participants. This is done so that the laboratory may be alerted to other possible errors in its testing procedure.
 6. **Data for two samples (or two tests) appeared to be switched by the lab, and the error was corrected by CTS.**
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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.

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1H7JFK		3,402.0	-36.3	-0.21	3,441.0	48.9	0.33	ZZ
1Z4EPW		3,162.6	-275.8	-1.57	3,248.1	-144.0	-0.97	ZZ
34FZU8		3,599.1	160.8	0.91	3,632.5	240.4	1.62	ZZ
37H1SK		3,265.1	-173.3	-0.98	3,182.9	-209.3	-1.41	ZZ
3RGLZB		3,068.3	-370.0	-2.10	3,090.1	-302.1	-2.03	ZZ
437T7Q	*	3,805.0	366.7	2.08	3,553.0	160.9	1.08	ZZ
4JNJQQ		3,347.0	-91.3	-0.52	3,215.5	-176.6	-1.19	ZZ
4SL4B7		3,667.0	228.7	1.30	3,537.5	145.4	0.98	ZZ
4TG4F3	X	3,118.5	-319.8	-1.82	2,825.5	-566.6	-3.81	ZZ
4USZWF		3,682.0	243.7	1.38	3,609.5	217.4	1.46	ZZ
53XUDU		3,534.5	96.2	0.55	3,432.5	40.4	0.27	ZZ
5EE2D2		3,681.0	242.7	1.38	3,650.5	258.4	1.74	ZZ
5K8TX4		3,463.5	25.2	0.14	3,256.0	-136.1	-0.91	ZZ
5MVWT	*	2,976.5	-461.8	-2.62	2,991.0	-401.1	-2.69	ZZ
5WA1D3		3,497.6	59.3	0.34	3,498.3	106.2	0.71	ZZ
5Y9MAY		3,466.4	28.1	0.16	3,430.2	38.1	0.26	ZZ
68PYXH		3,384.5	-53.8	-0.31	3,392.5	0.4	0.00	ZZ
69HMHY		3,389.0	-49.3	-0.28	3,322.0	-70.1	-0.47	ZZ
6Q1CP6		3,385.9	-52.4	-0.30	3,454.8	62.7	0.42	ZZ
6Q9PUW		3,723.9	285.6	1.62	3,668.2	276.1	1.85	ZZ
7BRJT3		3,535.5	97.2	0.55	3,474.5	82.4	0.55	ZZ
7DA9CJ		3,155.0	-283.3	-1.61	3,125.0	-267.1	-1.79	ZZ
7MJKZ4		3,229.5	-208.8	-1.19	3,223.5	-168.6	-1.13	ZZ
7X11A5		3,395.4	-43.0	-0.24	3,351.1	-41.0	-0.28	ZZ
8A8WES		3,451.9	13.6	0.08	3,401.2	9.1	0.06	ZZ
8VGYR4		3,604.2	165.9	0.94	3,517.2	125.1	0.84	ZZ
8VYCU7		3,463.5	25.2	0.14	3,385.9	-6.2	-0.04	ZZ
8WJQ6A		3,424.5	-13.8	-0.08	3,383.5	-8.6	-0.06	ZZ
8XYVVL		3,444.7	6.3	0.04	3,402.6	10.5	0.07	ZZ
974ZW3		3,257.6	-180.8	-1.03	3,204.6	-187.5	-1.26	ZZ
9PZAXT		3,132.0	-306.3	-1.74	3,046.0	-346.1	-2.33	ZZ
A3V14Q		3,190.2	-248.2	-1.41	3,317.5	-74.7	-0.50	ZZ
A5TP2Y		3,310.5	-127.8	-0.73	3,227.0	-165.1	-1.11	ZZ
A78WTZ		3,334.5	-103.8	-0.59	3,338.5	-53.6	-0.36	ZZ
AGEGH		3,406.5	-31.8	-0.18	3,350.0	-42.1	-0.28	ZZ

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
AQDKL5		3,575.2	136.9	0.78	3,480.9	88.8	0.60	ZZ
AR3D91		3,511.5	73.2	0.42	3,412.5	20.4	0.14	ZZ
B1KASC		3,421.5	-16.8	-0.10	3,388.5	-3.6	-0.02	ZZ
B6H9GE		3,578.5	140.2	0.80	3,545.0	152.9	1.03	ZZ
BE4ZPU	X	2,765.5	-672.8	-3.82	2,741.8	-650.3	-4.37	ZZ
BK59HF		3,223.0	-215.3	-1.22	3,309.0	-83.1	-0.56	ZZ
BM7FF8		3,104.5	-333.8	-1.90	3,185.0	-207.1	-1.39	ZZ
BU5NW3		3,594.0	155.7	0.88	3,505.0	112.9	0.76	ZZ
BWJ3SH		3,408.0	-30.3	-0.17	3,354.5	-37.6	-0.25	ZZ
CS8F84		3,538.2	99.9	0.57	3,312.7	-79.4	-0.53	ZZ
D7KENG	*	3,009.0	-429.3	-2.44	3,195.5	-196.6	-1.32	ZZ
DCDF1G		3,497.6	59.3	0.34	3,488.2	96.1	0.65	ZZ
DE8YGA		3,245.5	-192.8	-1.10	3,298.0	-94.1	-0.63	ZZ
DLVAEH		3,470.0	31.7	0.18	3,437.5	45.4	0.30	ZZ
DUSETM		3,756.5	318.1	1.81	3,631.1	239.0	1.61	ZZ
ED3FTB		3,472.0	33.7	0.19	3,380.5	-11.6	-0.08	ZZ
EYLDHN		3,290.0	-148.3	-0.84	3,291.0	-101.1	-0.68	ZZ
F5EYX8		3,554.5	116.2	0.66	3,513.3	121.1	0.81	ZZ
F9FZ94		3,562.1	123.8	0.70	3,535.6	143.5	0.96	ZZ
FBAYW8		3,251.5	-186.8	-1.06	3,249.5	-142.6	-0.96	ZZ
FGXCDG		3,396.5	-41.8	-0.24	3,458.0	65.9	0.44	ZZ
G91ECS		3,577.2	138.8	0.79	3,449.2	57.0	0.38	ZZ
GBFE6T		3,635.5	197.2	1.12	3,556.0	163.9	1.10	ZZ
GEHKGS		3,590.5	152.2	0.86	3,527.0	134.9	0.91	ZZ
GKQZ9P		3,381.5	-56.8	-0.32	3,297.0	-95.1	-0.64	ZZ
GPKB4V		3,323.3	-115.0	-0.65	3,369.9	-22.3	-0.15	ZZ
H3UPDE		3,553.5	115.1	0.65	3,553.5	161.3	1.08	ZZ
HSPT1A		3,394.0	-44.3	-0.25	3,460.5	68.4	0.46	ZZ
HUW2F		3,809.5	371.1	2.11	3,688.2	296.1	1.99	ZZ
J17MSH		3,707.9	269.6	1.53	3,697.0	304.9	2.05	ZZ
JCJM3C		3,436.5	-1.8	-0.01	3,453.0	60.9	0.41	ZZ
KS21E2		3,507.5	69.2	0.39	3,451.5	59.4	0.40	ZZ
KSKV3K		3,474.5	36.2	0.21	3,392.0	-0.1	0.00	ZZ
KX2H9G		3,517.3	79.0	0.45	3,299.3	-92.9	-0.62	ZZ
L52M8W		3,283.0	-155.3	-0.88	3,295.5	-96.6	-0.65	ZZ

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
LAQUKJ		3,602.0	163.7	0.93	3,513.0	120.9	0.81	ZZ
LBF6X5		3,488.0	49.7	0.28	3,441.0	48.9	0.33	ZZ
LJGDLL		3,277.0	-161.3	-0.92	3,324.0	-68.1	-0.46	ZZ
M3J8NV		3,368.5	-69.8	-0.40	3,275.0	-117.1	-0.79	ZZ
MTBKJW		3,599.0	160.7	0.91	3,466.0	73.9	0.50	ZZ
MVH3GS		3,546.5	108.2	0.61	3,404.5	12.4	0.08	ZZ
N4XUZH		3,622.3	184.0	1.04	3,453.6	61.5	0.41	ZZ
NK5FM4		3,461.5	23.2	0.13	3,390.5	-1.6	-0.01	ZZ
P5WB34		3,265.6	-172.8	-0.98	3,278.6	-113.5	-0.76	ZZ
PBFUGL	*	3,569.5	131.2	0.74	3,298.0	-94.1	-0.63	ZZ
PESZPZ		3,718.0	279.7	1.59	3,586.5	194.4	1.31	ZZ
PHA2FT		3,494.5	56.2	0.32	3,397.5	5.4	0.04	ZZ
PSX16Y		3,112.5	-325.8	-1.85	3,032.0	-360.1	-2.42	ZZ
PV6AF8		3,576.5	138.2	0.78	3,502.0	109.9	0.74	ZZ
PYWUWJ		3,481.5	43.2	0.25	3,515.5	123.4	0.83	ZZ
Q1LVP8	X	3,642.0	203.7	1.16	3,809.7	417.6	2.81	ZZ
QQ84GW		3,390.5	-47.9	-0.27	3,348.7	-43.4	-0.29	ZZ
QUKXEP		3,374.3	-64.0	-0.36	3,411.3	19.2	0.13	ZZ
RQCV65		3,358.5	-79.8	-0.45	3,271.5	-120.6	-0.81	ZZ
S7257E		3,587.0	148.7	0.84	3,500.5	108.4	0.73	ZZ
SSE4WN		3,657.0	218.7	1.24	3,428.5	36.4	0.24	ZZ
T8VUYE	X	1,391.5	-2,046.8	-11.62	1,413.0	-1,979.1	-13.30	ZZ
TSS6Y1		3,579.2	140.9	0.80	3,570.8	178.7	1.20	ZZ
TYPHQY		3,389.0	-49.3	-0.28	3,374.5	-17.6	-0.12	ZZ
UHGJF		3,394.5	-43.8	-0.25	3,202.0	-190.1	-1.28	ZZ
UPPGG5		3,216.0	-222.3	-1.26	3,267.5	-124.6	-0.84	ZZ
V685EX	M	3,227.0	-211.3	-1.20	3,131.0	-261.1	-1.75	ZZ
VE73EG		3,698.3	260.0	1.48	3,563.1	170.9	1.15	ZZ
W9FK1A		3,600.5	162.2	0.92	3,596.0	203.9	1.37	ZZ
WNZ742		3,517.5	79.2	0.45	3,457.5	65.4	0.44	ZZ
X1SD5H		3,390.0	-48.3	-0.27	3,222.0	-170.1	-1.14	ZZ
X4AWBF		3,241.6	-196.7	-1.12	3,198.1	-194.0	-1.30	ZZ
X6PT9C		3,299.6	-138.7	-0.79	3,335.9	-56.2	-0.38	ZZ
XDJAP3	*	3,088.6	-349.7	-1.99	3,261.9	-130.2	-0.87	ZZ
XJP9ML		3,395.5	-42.8	-0.24	3,329.5	-62.6	-0.42	ZZ

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XJYDQX		3,308.3	-130.0	-0.74	3,260.5	-131.6	-0.88	ZZ
YC1VN7		3,459.5	21.2	0.12	3,481.5	89.4	0.60	ZZ
YCWJBV		3,327.0	-111.3	-0.63	3,273.5	-118.6	-0.80	ZZ
ZLG7KQ	*	3,643.0	204.7	1.16	3,732.0	339.9	2.28	ZZ

Summary Statistics

Grand Means

3,438.33 psi

3,392.11 psi

Std Dev Btwn Labs

176.08 psi

148.84 psi

Statistics based on 104 of 109 reporting participants

Summary Statistics in SI Units

Grand Means

23.706 MPa

23.39 MPa

Std Dev Btwn Labs

1.214 MPa

1.03 MPa

Statistics based on 104 of 109 reporting participants

Samples D81-D82: Polyisoprene compound, batch #1 & D83-D84: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #605

4TG4F3 (X) - Inconsistency in testing between Sample sets. Data for Samples D83-D84 are low.

BE4ZPU (X) - Data for all Samples are low. Possible Systematic Error.

Q1LVP8 (X) - Inconsistency in testing between Sample sets. Data for Samples D83-D84 are high.

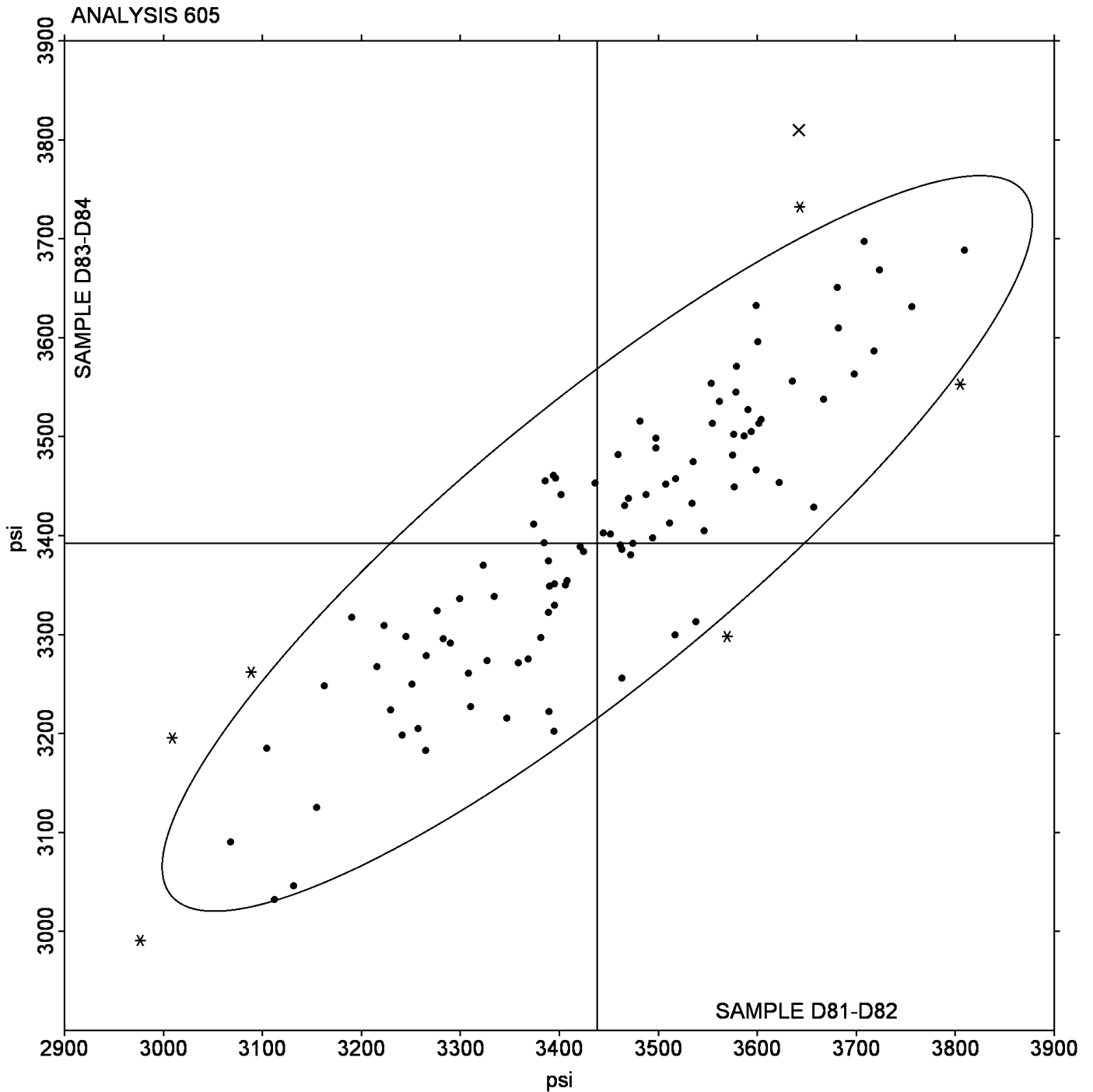
T8VUYE (X) - Data for all Samples are low.

V685EX (M) - Data not reported for Sample D83.

Analysis 605
Tensile Strength (psi)

Grand Mean Sample D81-D82 = 3,438.33 psi

Grand Mean Sample D83-D84 = 3,392.11 psi



Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
115DXW		574.0	-21.1	-0.65	580.0	-8.9	-0.29	ZZ
12CM3V		601.5	6.4	0.20	584.0	-4.9	-0.16	ZZ
178SX6		589.0	-6.1	-0.19	558.0	-30.9	-1.02	ZZ
1ER987		583.5	-11.6	-0.36	592.5	3.6	0.12	ZZ
1JNQYT		628.0	32.9	1.01	601.5	12.6	0.42	ZZ
1XX4NM		593.5	-1.6	-0.05	591.5	2.6	0.09	ZZ
23YHEY6		544.0	-51.1	-1.57	541.5	-47.4	-1.57	ZZ
2T6QV4		606.0	10.9	0.33	620.5	31.6	1.04	ZZ
454WMK		625.5	30.4	0.93	620.0	31.1	1.03	ZZ
47QR48		608.0	12.9	0.40	593.5	4.6	0.15	ZZ
48FN62		572.0	-23.1	-0.71	565.0	-23.9	-0.79	ZZ
49XH3V		601.0	5.9	0.18	590.0	1.1	0.04	ZZ
4DX4CS		614.0	18.9	0.58	605.0	16.1	0.53	ZZ
56D5FS		595.5	0.4	0.01	602.0	13.1	0.43	ZZ
5DW5LM	M	573.5	-21.6	-0.66	549.0	-39.9	-1.32	ZZ
5LB716		608.1	12.9	0.40	615.4	26.5	0.87	ZZ
5SF6F2		565.7	-29.4	-0.90	574.1	-14.8	-0.49	ZZ
5U6RJ6		558.5	-36.6	-1.13	550.5	-38.4	-1.27	ZZ
6PAGKC		559.0	-36.1	-1.11	554.0	-34.9	-1.15	ZZ
6WSTWH		595.0	-0.1	0.00	595.0	6.1	0.20	ZZ
6Y1XNZ		581.0	-14.1	-0.43	582.0	-6.9	-0.23	ZZ
6YRZPN		577.5	-17.6	-0.54	572.5	-16.4	-0.54	ZZ
745837		599.5	4.4	0.13	581.5	-7.4	-0.24	ZZ
7LMSTR		614.5	19.4	0.60	609.5	20.6	0.68	ZZ
8HSLA1		583.0	-12.1	-0.37	572.0	-16.9	-0.56	ZZ
8L1JA2		588.5	-6.6	-0.20	575.0	-13.9	-0.46	ZZ
91QC16		584.5	-10.6	-0.33	576.5	-12.4	-0.41	ZZ
9GJPX2		569.7	-25.4	-0.78	559.9	-29.0	-0.96	ZZ
9LAD32		585.5	-9.6	-0.30	586.5	-2.4	-0.08	ZZ
A2TFV3		644.0	48.9	1.50	643.5	54.6	1.80	ZZ
AGCX3Y	*	599.5	4.4	0.13	565.0	-23.9	-0.79	ZZ
AN8536		617.5	22.4	0.69	594.0	5.1	0.17	ZZ
AT2FFX		589.5	-5.6	-0.17	597.0	8.1	0.27	ZZ
B2JEG9		582.5	-12.6	-0.39	582.5	-6.4	-0.21	ZZ
C1KREQ		559.0	-36.1	-1.11	558.0	-30.9	-1.02	ZZ

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
C4TDFS		614.0	18.9	0.58	605.0	16.1	0.53	ZZ
CGNA6L		517.5	-77.6	-2.39	522.5	-66.4	-2.19	ZZ
CVLNUG		556.5	-38.6	-1.19	561.5	-27.4	-0.91	ZZ
D2AWE6		583.0	-12.1	-0.37	570.5	-18.4	-0.61	ZZ
DALFQY	X	578.5	-16.6	-0.51	617.0	28.1	0.93	ZZ
DY5U9W		607.5	12.4	0.38	586.5	-2.4	-0.08	ZZ
E4RH8F		580.0	-15.1	-0.46	576.0	-12.9	-0.43	ZZ
E74LUB		582.5	-12.6	-0.39	576.5	-12.4	-0.41	ZZ
EHHB4U	X	716.5	121.4	3.73	728.0	139.1	4.60	ZZ
EY14LU		671.5	76.4	2.35	653.0	64.1	2.12	ZZ
FFYA9L		583.5	-11.6	-0.36	579.5	-9.4	-0.31	ZZ
G4HS6F		644.0	48.9	1.50	643.5	54.6	1.80	ZZ
G5JKD2		627.5	32.4	1.00	621.5	32.6	1.08	ZZ
G5Y1HF		539.5	-55.7	-1.71	541.1	-47.8	-1.58	ZZ
G6BHKM		610.5	15.4	0.47	599.5	10.6	0.35	ZZ
GQFFJU		552.9	-42.2	-1.30	548.6	-40.3	-1.33	ZZ
GXTAUQ	X	353.7	-241.5	-7.42	354.3	-234.6	-7.75	ZZ
HAGR59		600.0	4.9	0.15	605.5	16.6	0.55	ZZ
HM6WT7		659.0	63.9	1.96	643.0	54.1	1.79	ZZ
J1TLTX		557.8	-37.3	-1.15	555.0	-33.9	-1.12	ZZ
J48VU7		557.0	-38.1	-1.17	558.0	-30.9	-1.02	ZZ
JCTK73		666.0	70.8	2.18	650.2	61.3	2.03	ZZ
JHT5M5		621.4	26.3	0.81	606.9	18.0	0.59	ZZ
JU5CLQ		606.0	10.9	0.33	600.5	11.6	0.38	ZZ
KCNUB5	*	650.9	55.8	1.72	616.4	27.5	0.91	ZZ
KD3VFS		598.5	3.4	0.10	608.5	19.6	0.65	ZZ
L4K6PH		594.5	-0.6	-0.02	587.0	-1.9	-0.06	ZZ
LMWWP		549.0	-46.1	-1.42	546.0	-42.9	-1.42	ZZ
LMXNTX		579.5	-15.6	-0.48	584.0	-4.9	-0.16	ZZ
M7CRNL		600.5	5.4	0.17	602.0	13.1	0.43	ZZ
MDC8U5		636.6	41.5	1.28	632.8	43.9	1.45	ZZ
MUXEZK		612.5	17.4	0.53	600.0	11.1	0.37	ZZ
NRXJWA		548.6	-46.5	-1.43	561.2	-27.7	-0.92	ZZ
NSWNRB	X	1,463.6	868.5	26.70	1,560.9	972.0	32.12	ZZ
PRKXST	*	520.0	-75.1	-2.31	508.5	-80.4	-2.66	ZZ

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Q8WA6P		619.0	23.9	0.73	615.0	26.1	0.86	ZZ
QDF4M3		605.5	10.4	0.32	592.5	3.6	0.12	ZZ
QMV88E		579.5	-15.6	-0.48	589.0	0.1	0.00	ZZ
R4486A	X	758.5	163.4	5.02	964.0	375.1	12.39	ZZ
RCCEUF		595.5	0.4	0.01	596.0	7.1	0.23	ZZ
RVAK4X		563.5	-31.6	-0.97	554.5	-34.4	-1.14	ZZ
RY5WRB		618.5	23.4	0.72	608.0	19.1	0.63	ZZ
SF6R48	*	676.5	81.3	2.50	662.5	73.6	2.43	ZZ
SHE1YR		608.0	12.9	0.40	621.0	32.1	1.06	ZZ
SRXKLLK		588.3	-6.8	-0.21	590.5	1.6	0.05	ZZ
SSVSCM		580.5	-14.6	-0.45	556.5	-32.4	-1.07	ZZ
T4VH3E	*	640.0	44.9	1.38	603.4	14.5	0.48	ZZ
U7R7LF		540.0	-55.1	-1.69	548.3	-40.6	-1.34	ZZ
UAM25N		626.4	31.3	0.96	613.8	24.9	0.82	ZZ
UH7CZW		569.0	-26.1	-0.80	548.0	-40.9	-1.35	ZZ
UNZZPK		592.0	-3.1	-0.10	577.5	-11.4	-0.38	ZZ
USKUUB		632.0	36.9	1.13	622.0	33.1	1.09	ZZ
UX3GX2		572.0	-23.1	-0.71	582.0	-6.9	-0.23	ZZ
VB8RJG		643.8	48.7	1.50	623.7	34.8	1.15	ZZ
VUENVC		581.5	-13.6	-0.42	572.0	-16.9	-0.56	ZZ
VXBU1A	*	520.0	-75.1	-2.31	505.0	-83.9	-2.77	ZZ
VYGJMT		625.5	30.4	0.93	628.5	39.6	1.31	ZZ
WC3428		623.0	27.9	0.86	612.5	23.6	0.78	ZZ
WFRAS		612.5	17.4	0.53	607.5	18.6	0.61	ZZ
WU8GN		536.0	-59.1	-1.82	550.0	-38.9	-1.29	ZZ
WZGKW		607.0	11.9	0.37	577.0	-11.9	-0.39	ZZ
X5CYMK		619.0	23.9	0.74	606.9	18.0	0.59	ZZ
X9BCA9	X	520.5	-74.6	-2.29	465.5	-123.4	-4.08	ZZ
XSSRLQ		634.5	39.4	1.21	634.5	45.6	1.51	ZZ
Y2EVGW		602.5	7.4	0.23	585.0	-3.9	-0.13	ZZ
Y8X8FV		606.0	10.9	0.33	590.5	1.6	0.05	ZZ
Y9Y29M		623.0	27.9	0.86	629.0	40.1	1.33	ZZ
YD19C6		584.5	-10.6	-0.33	584.0	-4.9	-0.16	ZZ
YTX13V		609.5	14.4	0.44	608.0	19.1	0.63	ZZ
ZMDDA		576.6	-18.5	-0.57	586.9	-2.0	-0.07	ZZ

Analysis 606

Ultimate Elongation (percent)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ZU6X1Q		579.0	-16.1	-0.50	579.5	-9.4	-0.31	ZZ

Summary Statistics			
Grand Means	595.11	percent	588.90
Std Dev Btw Labs	32.53	percent	30.26
Statistics based on 99 of 106 reporting participants			

Samples D81-D82: Polyisoprene compound, batch #1 & D83-D84: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #606

5DW5LM (M) - Data not reported for Sample D83.

DALFQY (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Sample sets D81-D82.

EHHB4U (X) - Inconsistency in testing between Sample sets.

GXTAUQ (X) - Data for all Samples are low.

NSWNRB (X) - Data for all Samples are high.

R4486A (X) - Data for all Samples are high.

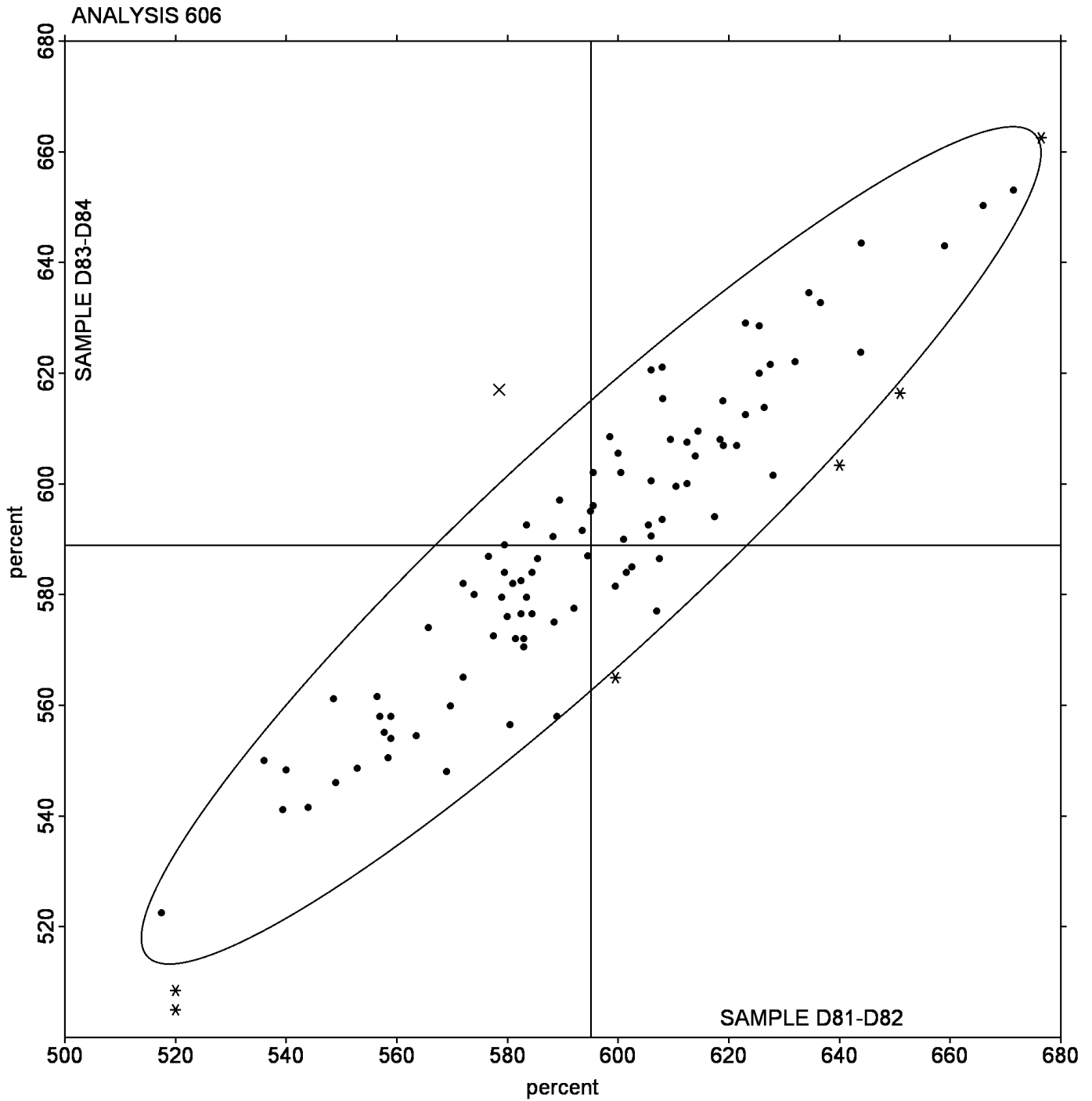
X9BCA9 (X) - Inconsistency in testing between Sample sets. Low data for Sample sets D83-D84. Also inconsistent in testing within Sample sets D83-D84.

Analysis 606

Ultimate Elongation (percent)

Grand Mean Sample D81-D82 = 595.11 percent

Grand Mean Sample D83-D84 = 588.90 percent



Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1J1GL5		1,132.0	22.4	0.32	1,159.5	33.1	0.49	ZZ
1K54TS		1,050.5	-59.1	-0.85	1,061.0	-65.4	-0.96	ZZ
1RY2S7		1,093.5	-16.1	-0.23	1,135.0	8.6	0.13	ZZ
1UXTSM		1,080.4	-29.3	-0.42	1,102.7	-23.7	-0.35	ZZ
1XYJYR		950.8	-158.8	-2.28	988.3	-138.1	-2.03	ZZ
21C48K	X	935.3	-174.3	-2.51	877.6	-248.8	-3.65	ZZ
2ET26T		1,057.5	-52.1	-0.75	1,142.5	16.1	0.24	ZZ
37EEAW		1,087.5	-22.1	-0.32	1,073.5	-52.9	-0.78	ZZ
382464		996.0	-113.6	-1.63	1,091.0	-35.4	-0.52	ZZ
383K93		1,039.0	-70.6	-1.02	1,048.0	-78.4	-1.15	ZZ
3QS2HC		1,149.5	39.9	0.57	1,201.0	74.6	1.10	ZZ
45TZJF		1,090.0	-19.7	-0.28	1,098.5	-27.9	-0.41	ZZ
54RG4S		1,131.3	21.7	0.31	1,116.8	-9.6	-0.14	ZZ
5KD6TT	X	1,378.5	268.9	3.87	1,386.0	259.6	3.81	ZZ
62NGPX		1,080.5	-29.1	-0.42	1,115.5	-10.9	-0.16	ZZ
63FGRN		1,268.4	158.7	2.28	1,240.8	114.4	1.68	ZZ
6CF4JK		1,113.5	3.9	0.06	1,107.5	-18.9	-0.28	ZZ
6F4K6Z		1,166.0	56.4	0.81	1,167.5	41.1	0.60	ZZ
6JGZ21		1,131.5	21.9	0.31	1,153.0	26.6	0.39	ZZ
6LMKSM		1,053.5	-56.1	-0.81	1,097.5	-28.9	-0.42	ZZ
6ZUT4G		1,122.0	12.4	0.18	1,107.5	-18.9	-0.28	ZZ
8TEN11		1,089.2	-20.4	-0.29	1,153.8	27.4	0.40	ZZ
9CE5CW		1,101.5	-8.1	-0.12	1,112.5	-13.9	-0.20	ZZ
9E9VVV		1,117.2	7.6	0.11	1,145.3	18.9	0.28	ZZ
9EQWYX		1,024.0	-85.6	-1.23	1,028.5	-97.9	-1.44	ZZ
AURF9E	X	391.0	-718.6	-10.33	403.0	-723.4	-10.62	ZZ
B1Q79W		1,031.0	-78.6	-1.13	1,042.0	-84.4	-1.24	ZZ
BBMVU5		1,056.5	-53.1	-0.76	1,112.5	-13.9	-0.20	ZZ
BTR5YB		1,074.0	-35.6	-0.51	1,054.0	-72.4	-1.06	ZZ
BVRGJ5		1,006.5	-103.1	-1.48	997.0	-129.4	-1.90	ZZ
BX2EPL	X	1,301.0	191.4	2.75	1,388.0	261.6	3.84	ZZ
CZUD5J		1,190.2	80.6	1.16	1,273.4	147.0	2.16	ZZ
DW6TRT		1,003.0	-106.6	-1.53	1,003.0	-123.4	-1.81	ZZ
FT4A3Q		1,083.5	-26.1	-0.38	1,093.0	-33.4	-0.49	ZZ
FZ93D8		1,025.7	-83.9	-1.21	1,104.3	-22.1	-0.32	ZZ

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
G3L9CS		1,193.0	83.4	1.20	1,152.0	25.6	0.38	ZZ
GHND2X		1,147.5	37.9	0.54	1,181.0	54.6	0.80	ZZ
GNLSY1		1,117.9	8.2	0.12	1,140.8	14.4	0.21	ZZ
GTYBM		1,080.5	-29.1	-0.42	1,109.5	-16.9	-0.25	ZZ
GWEAKJ	X	408.3	-701.4	-10.09	406.1	-720.3	-10.57	ZZ
H3YHED		1,107.5	-2.1	-0.03	1,116.5	-9.9	-0.15	ZZ
HAG5SB		1,029.0	-80.6	-1.16	992.0	-134.4	-1.97	ZZ
HL4R36		1,070.5	-39.1	-0.56	1,138.8	12.4	0.18	ZZ
HX2FBT		1,166.8	57.2	0.82	1,209.6	83.2	1.22	ZZ
J4PH9B		1,192.5	82.9	1.19	1,206.0	79.6	1.17	ZZ
JJNBYY	X	1,396.0	286.4	4.12	1,435.2	308.8	4.53	ZZ
JYGF97		1,030.0	-79.6	-1.15	1,044.0	-82.4	-1.21	ZZ
K4STVR		1,085.6	-24.0	-0.35	1,111.7	-14.7	-0.22	ZZ
K58GEX		1,158.5	48.9	0.70	1,218.0	91.6	1.34	ZZ
KGWYV		1,033.0	-76.6	-1.10	1,013.0	-113.4	-1.66	ZZ
KP7CFF	X	895.5	-214.1	-3.08	864.7	-261.7	-3.84	ZZ
L2S79L		1,129.0	19.4	0.28	1,142.5	16.1	0.24	ZZ
LMDYA3	X	1,219.5	109.9	1.58	1,403.5	277.1	4.07	ZZ
M1L2VQ		1,109.0	-0.6	-0.01	1,153.0	26.6	0.39	ZZ
M2MVQ		1,166.0	56.4	0.81	1,135.5	9.1	0.13	ZZ
MBLQM		1,112.0	2.4	0.03	1,120.0	-6.4	-0.09	ZZ
MERH7R		1,104.5	-5.2	-0.07	1,113.2	-13.2	-0.19	ZZ
MP1CLD	X	1,319.9	210.2	3.02	790.5	-335.9	-4.93	ZZ
MPC7XS		1,088.0	-21.6	-0.31	1,075.0	-51.4	-0.75	ZZ
NB5L6M		1,160.0	50.4	0.72	1,199.5	73.1	1.07	ZZ
NXMUE		1,110.5	0.9	0.01	1,116.5	-9.9	-0.15	ZZ
PKBDXY		1,143.5	33.9	0.49	1,134.5	8.1	0.12	ZZ
Q2KHK4		1,051.9	-57.8	-0.83	1,156.5	30.1	0.44	ZZ
Q2M45X		1,059.0	-50.6	-0.73	1,035.0	-91.4	-1.34	ZZ
Q456WR		1,068.5	-41.1	-0.59	1,125.0	-1.4	-0.02	ZZ
Q4PQKH		1,040.5	-69.1	-0.99	1,069.5	-56.9	-0.84	ZZ
QESL22		1,238.0	128.4	1.85	1,233.0	106.6	1.56	ZZ
QKLBG4		1,124.5	14.9	0.21	1,073.0	-53.4	-0.78	ZZ
QQHQB6		1,040.5	-69.1	-0.99	1,091.5	-34.9	-0.51	ZZ
QRUMTJ		1,253.0	143.4	2.06	1,227.5	101.1	1.48	ZZ

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
R6B6CG		1,107.0	-2.6	-0.04	1,122.0	-4.4	-0.06	ZZ
RC7J2D		1,138.4	28.8	0.41	1,167.7	41.3	0.61	ZZ
RGHS9A		1,134.0	24.4	0.35	1,077.5	-48.9	-0.72	ZZ
RYTU82		1,088.0	-21.6	-0.31	1,074.0	-52.4	-0.77	ZZ
SH53FN		1,275.6	166.0	2.39	1,271.3	144.9	2.13	ZZ
SLREAC		1,002.5	-107.1	-1.54	999.5	-126.9	-1.86	ZZ
SQ8S5D		1,227.8	118.1	1.70	1,229.9	103.5	1.52	ZZ
STC7SJ	X	1,105.0	-4.6	-0.07	986.0	-140.4	-2.06	ZZ
SY6MQX		1,077.5	-32.1	-0.46	1,028.5	-97.9	-1.44	ZZ
T1JV15		1,207.0	97.4	1.40	1,180.0	53.6	0.79	ZZ
TW6Q52		1,009.5	-100.2	-1.44	1,060.2	-66.2	-0.97	ZZ
UDU5HY		1,133.5	23.8	0.34	1,203.1	76.7	1.13	ZZ
UP9SBC		1,145.5	35.9	0.52	1,136.0	9.6	0.14	ZZ
UV9JD9		1,070.5	-39.1	-0.56	1,098.5	-27.9	-0.41	ZZ
VH91Q9		1,251.3	141.7	2.04	1,266.5	140.1	2.06	ZZ
VRLKD5	X	1,199.5	89.8	1.29	1,318.4	192.0	2.82	ZZ
WGD57X		1,016.5	-93.1	-1.34	1,113.5	-12.9	-0.19	ZZ
X3T2F7		1,126.0	16.4	0.24	1,167.0	40.6	0.60	ZZ
XA58WV		1,203.8	94.2	1.35	1,153.1	26.7	0.39	ZZ
XDS83D		1,196.6	86.9	1.25	1,138.6	12.2	0.18	ZZ
XL5VPT		1,187.0	77.4	1.11	1,194.0	67.6	0.99	ZZ
XN577L		1,063.5	-46.1	-0.66	1,130.0	3.6	0.05	ZZ
XPR2EA	*	1,303.5	193.9	2.79	1,310.0	183.6	2.69	ZZ
XQZ1LD		1,081.1	-28.6	-0.41	1,108.7	-17.7	-0.26	ZZ
Y51HJX		1,123.0	13.4	0.19	1,105.0	-21.4	-0.31	ZZ
YRE98C		1,187.1	77.5	1.11	1,149.4	23.0	0.34	ZZ
YSKVFB	X	163,676.5	162,566.9	2,337.68	172,378.9	171,252.5	2,513.74	ZZ
YWTSV1		1,124.5	14.8	0.21	1,203.0	76.6	1.12	ZZ
Z6TX5T	*	1,115.0	5.4	0.08	1,227.0	100.6	1.48	ZZ
ZA6NP2		1,066.0	-43.6	-0.63	1,090.0	-36.4	-0.53	ZZ
ZL67ZF		1,090.0	-19.7	-0.28	1,085.6	-40.8	-0.60	ZZ

Analysis 607

Stress at 300% Elongation (psi)

		Summary Statistics	
Grand Means	1,109.64 psi		1,126.40 psi
Std Dev Btwn Labs	69.54 psi		68.13 psi
Statistics based on 89 of 101 reporting participants			

		Summary Statistics in SI Units	
Grand Means	7.6506 MPa		7.77 MPa
Std Dev Btwn Labs	0.4795 MPa		0.47 MPa
Statistics based on 89 of 101 reporting participants			

Samples D81-D82: Polyisoprene compound, batch #1 & D83-D84: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #607

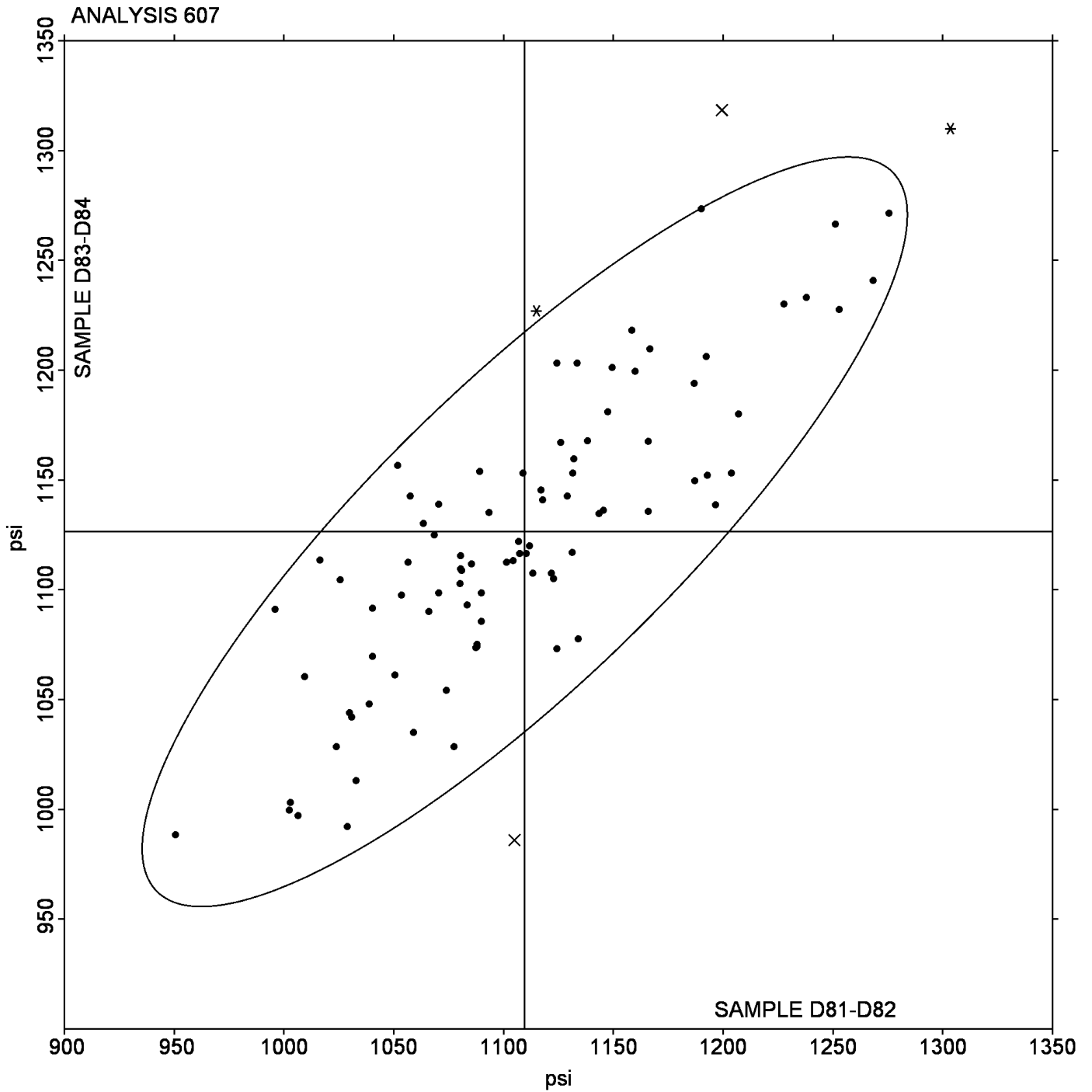
- 21C48K (X) - Inconsistency in testing between Sample sets. Data for Sample set D83-D84 are low.
- 5KD6TT (X) - Data for all Samples are high. Possible Systematic Error.
- AURF9E (X) - Data for all Samples are low.
- BX2EPL (X) - Inconsistency in testing between Sample sets. Data for Sample set D83-D84 are high.
- GWEAKJ (X) - Data for all Samples are low.
- JJNBYY (X) - Data for all Samples are high. Possible Systematic Error.
- KP7CFF (X) - Data for all Samples are low. Possible Systematic Error.
- LMDYA3 (X) - Inconsistency in testing between Sample sets. Data for Sample set D83-D84 are high.
- MP1CLD (X) - Inconsistency in testing between Sample sets. Data for Samples D81-D82 high and data for Samples D83-D84 low.
- STC7SJ (X) - Inconsistency in testing between Sample sets.
- VRLKD5 (X) - Inconsistency in testing between Sample sets. Data for Sample set D83-D84 are high.
- YSKVFB (X) - Extreme data for both Sample sets. Lab indicated reporting in MPa, but data appear to be in psi.

Analysis 607

Stress at 300% Elongation (psi)

Grand Mean Sample D81-D82 = 1,109.64 psi

Grand Mean Sample D83-D84 = 1,126.40 psi



Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1D3JTM		241.7	5.6	0.38	247.9	8.1	0.50	ZZ
1GYVDF		264.7	28.6	1.92	269.0	29.3	1.81	ZZ
1LPC77		241.0	4.9	0.33	235.5	-4.2	-0.26	ZZ
1N2954		232.5	-3.6	-0.24	237.0	-2.7	-0.17	ZZ
1P6SGZ	*	251.0	14.9	1.00	231.5	-8.2	-0.51	ZZ
1PHFLS		253.8	17.8	1.19	252.4	12.6	0.78	ZZ
1WTU6V		240.5	4.4	0.30	243.0	3.3	0.20	ZZ
2BVQBT		216.1	-19.9	-1.34	225.5	-14.2	-0.88	ZZ
2D7BCF		238.0	1.9	0.13	232.0	-7.7	-0.48	ZZ
2SEEH3		214.0	-22.1	-1.48	213.5	-26.2	-1.62	ZZ
2XJEEC		228.5	-7.6	-0.51	241.5	1.8	0.11	ZZ
319M28		228.4	-7.6	-0.51	234.2	-5.5	-0.34	ZZ
36MZY5		236.0	-0.1	0.00	247.5	7.8	0.48	ZZ
3LVD4Q	X	234.5	-1.6	-0.10	268.0	28.3	1.74	ZZ
3SR8C3		220.0	-16.1	-1.08	226.0	-13.7	-0.85	ZZ
3UCLP7	X	34,229.2	33,993.1	2,278.91	35,607.1	35,367.3	2,183.87	ZZ
581ZRB		216.9	-19.2	-1.28	232.8	-7.0	-0.43	ZZ
58BH84		227.7	-8.3	-0.56	235.2	-4.5	-0.28	ZZ
58MTY9		225.5	-10.5	-0.71	216.8	-22.9	-1.41	ZZ
5SKXW3		232.0	-4.1	-0.27	236.5	-3.2	-0.20	ZZ
5VSMKT		249.0	12.9	0.87	247.0	7.3	0.45	ZZ
6B4AUY		233.0	-3.1	-0.20	241.5	1.8	0.11	ZZ
6EE6NG		213.2	-22.9	-1.53	229.4	-10.3	-0.64	ZZ
6N35C1		254.5	18.4	1.24	249.0	9.3	0.57	ZZ
73YNMX		229.5	-6.6	-0.44	231.5	-8.2	-0.51	ZZ
76SDGR	X	285.5	49.4	3.31	297.5	57.8	3.57	ZZ
7AFAHM		222.5	-13.6	-0.91	240.0	0.3	0.02	ZZ
7JB26V		224.5	-11.6	-0.77	224.5	-15.2	-0.94	ZZ
8FTNFK		262.5	26.5	1.77	256.7	17.0	1.05	ZZ
8SUVVH		247.5	11.4	0.77	248.0	8.3	0.51	ZZ
8V4UJC		207.3	-28.8	-1.93	200.1	-39.7	-2.45	ZZ
9C8ZTD	X	311.5	75.4	5.06	291.5	51.8	3.20	ZZ
9P6C9K		243.0	6.9	0.47	248.5	8.8	0.54	ZZ
9PMPEJ		242.2	6.2	0.41	254.5	14.8	0.91	ZZ
9RJF1W		245.5	9.4	0.63	242.5	2.8	0.17	ZZ

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
9XCNCW		235.5	-0.6	-0.04	234.0	-5.7	-0.35	ZZ
A5T5F4		255.3	19.2	1.29	247.3	7.5	0.47	ZZ
AC6KZC	X	257.5	21.4	1.44	292.0	52.3	3.23	ZZ
AMEALP		255.0	18.9	1.27	250.5	10.8	0.66	ZZ
BTR44T		235.7	-0.4	-0.03	243.9	4.2	0.26	ZZ
BYEUCU		223.0	-13.1	-0.88	223.0	-16.7	-1.03	ZZ
C4HA71		238.5	2.4	0.16	235.5	-4.2	-0.26	ZZ
C731MY	*	250.5	14.4	0.97	229.5	-10.2	-0.63	ZZ
C7GL7G		225.0	-11.0	-0.74	248.8	9.0	0.56	ZZ
CYAPEX		268.0	31.9	2.14	272.5	32.8	2.02	ZZ
D1FLGS		253.8	17.8	1.19	258.9	19.1	1.18	ZZ
DSX2JE		267.0	30.9	2.07	276.0	36.3	2.24	ZZ
E3Y2DC		223.0	-13.1	-0.88	233.0	-6.7	-0.42	ZZ
ECT4TV		246.6	10.5	0.70	250.9	11.2	0.69	ZZ
F755FK	*	258.9	22.8	1.53	277.7	38.0	2.35	ZZ
FD94R9		214.0	-22.1	-1.48	217.5	-22.2	-1.37	ZZ
FJQ5MU		227.7	-8.3	-0.56	240.0	0.3	0.02	ZZ
FK54Q9		235.0	-1.1	-0.07	236.5	-3.2	-0.20	ZZ
GLVLGP		236.5	0.4	0.03	239.5	-0.2	-0.02	ZZ
GNH9SP		224.0	-12.1	-0.81	229.5	-10.2	-0.63	ZZ
GSKFNG	X	149.4	-86.7	-5.81	171.9	-67.9	-4.19	ZZ
GWPFL1		213.0	-23.1	-1.55	211.5	-28.2	-1.74	ZZ
HBU96F		241.0	4.9	0.33	244.5	4.8	0.29	ZZ
HK25XD		225.0	-11.1	-0.74	218.5	-21.2	-1.31	ZZ
JL9STK		228.5	-7.6	-0.51	232.5	-7.2	-0.45	ZZ
JP5XAA		249.5	13.4	0.90	242.0	2.3	0.14	ZZ
K22SLH		224.8	-11.2	-0.75	232.1	-7.7	-0.47	ZZ
K6R665		253.0	16.9	1.14	260.5	20.8	1.28	ZZ
KFWAUF		213.5	-22.6	-1.51	204.5	-35.2	-2.18	ZZ
L2UZ76		216.5	-19.6	-1.31	237.5	-2.2	-0.14	ZZ
L34JYX		234.3	-1.7	-0.12	233.5	-6.2	-0.39	ZZ
L94UYA		234.0	-2.1	-0.14	227.5	-12.2	-0.76	ZZ
LWE1CT		227.0	-9.1	-0.61	225.5	-14.2	-0.88	ZZ
M4ADT8		220.5	-15.6	-1.04	230.5	-9.2	-0.57	ZZ
MFDRM1		230.0	-6.1	-0.41	233.0	-6.7	-0.42	ZZ

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
N75CSR		256.0	19.9	1.34	254.5	14.8	0.91	ZZ
NHW8F5		227.0	-9.1	-0.61	223.0	-16.7	-1.03	ZZ
PBT962		266.0	29.9	2.01	265.0	25.3	1.56	ZZ
PCCE3Y		231.0	-5.1	-0.34	240.0	0.3	0.02	ZZ
QDY9KL		236.5	0.4	0.03	235.5	-4.2	-0.26	ZZ
QQTNKH		229.0	-7.1	-0.47	234.5	-5.2	-0.32	ZZ
R8NQU5	*	251.5	15.4	1.04	277.5	37.8	2.33	ZZ
SK1MJL		263.0	26.9	1.81	273.0	33.3	2.05	ZZ
SKMLX7	X	427.9	191.8	12.86	261.1	21.3	1.32	ZZ
SSVA95		229.0	-7.1	-0.47	230.5	-9.2	-0.57	ZZ
T146MA		236.0	-0.1	-0.01	233.4	-6.3	-0.39	ZZ
TM6BUV		218.5	-17.6	-1.18	215.0	-24.7	-1.53	ZZ
TW2P7B		264.4	28.4	1.90	265.4	25.7	1.58	ZZ
TXVN9G		217.6	-18.5	-1.24	232.1	-7.7	-0.47	ZZ
UAHNEF		241.5	5.4	0.36	234.2	-5.5	-0.34	ZZ
UC9PM4		233.9	-2.2	-0.15	252.1	12.4	0.76	ZZ
UCWGL		237.0	0.9	0.06	250.0	10.3	0.63	ZZ
V2PYPD		260.0	23.9	1.61	267.0	27.3	1.68	ZZ
V4K6W3		243.0	6.9	0.47	254.5	14.8	0.91	ZZ
V5HTTL		234.9	-1.2	-0.08	237.1	-2.6	-0.16	ZZ
VACZY		214.5	-21.6	-1.45	213.5	-26.2	-1.62	ZZ
VMDNV		219.2	-16.9	-1.13	224.0	-15.7	-0.97	ZZ
VTLB3D		253.5	17.4	1.17	248.3	8.5	0.52	ZZ
WFD6PB		235.0	-1.1	-0.07	243.0	3.3	0.20	ZZ
WG7PEY		255.4	19.4	1.30	274.3	34.5	2.13	ZZ
X3EQKN		228.8	-7.3	-0.49	234.4	-5.4	-0.33	ZZ
YCG3H3		244.0	7.9	0.53	249.0	9.3	0.57	ZZ
YCQCT7		217.5	-18.6	-1.24	215.5	-24.2	-1.50	ZZ
YTMGT5		235.0	-1.1	-0.07	248.5	8.8	0.54	ZZ
Z7SB5Y		221.0	-15.1	-1.01	240.0	0.3	0.02	ZZ
ZMU8R5		227.5	-8.6	-0.57	230.0	-9.7	-0.60	ZZ
ZVYC9V		232.1	-4.0	-0.27	232.1	-7.7	-0.47	ZZ

Analysis 608

Stress at 100% Elongation (psi)

Summary Statistics

Grand Means

236.06 psi

239.75 psi

Std Dev Btw Labs

14.92 psi

16.19 psi

Statistics based on 95 of 102 reporting participants

Summary Statistics in SI Units

Grand Means

1.6275 MPa

1.65 MPa

Std Dev Btw Labs

0.1028 MPa

0.11 MPa

Statistics based on 95 of 102 reporting participants

Samples D81-D82: Polyisoprene compound, batch #1 & D83-D84: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #608

3LVD4Q (X) - Inconsistency in testing between Sample sets.

3UCLP7 (X) - Extreme data for both Sample sets. Lab indicated reporting in MPa, but data appear to be in psi.

76SDGR (X) - Data for all Samples are low. Possible Systematic Error.

9C8ZTD (X) - Data for all Samples are high.

AC6KZC (X) - Inconsistency in testing between Sample sets. Sample sets D83-D84 are high.

GSKFNG (X) - Data for all Samples are low.

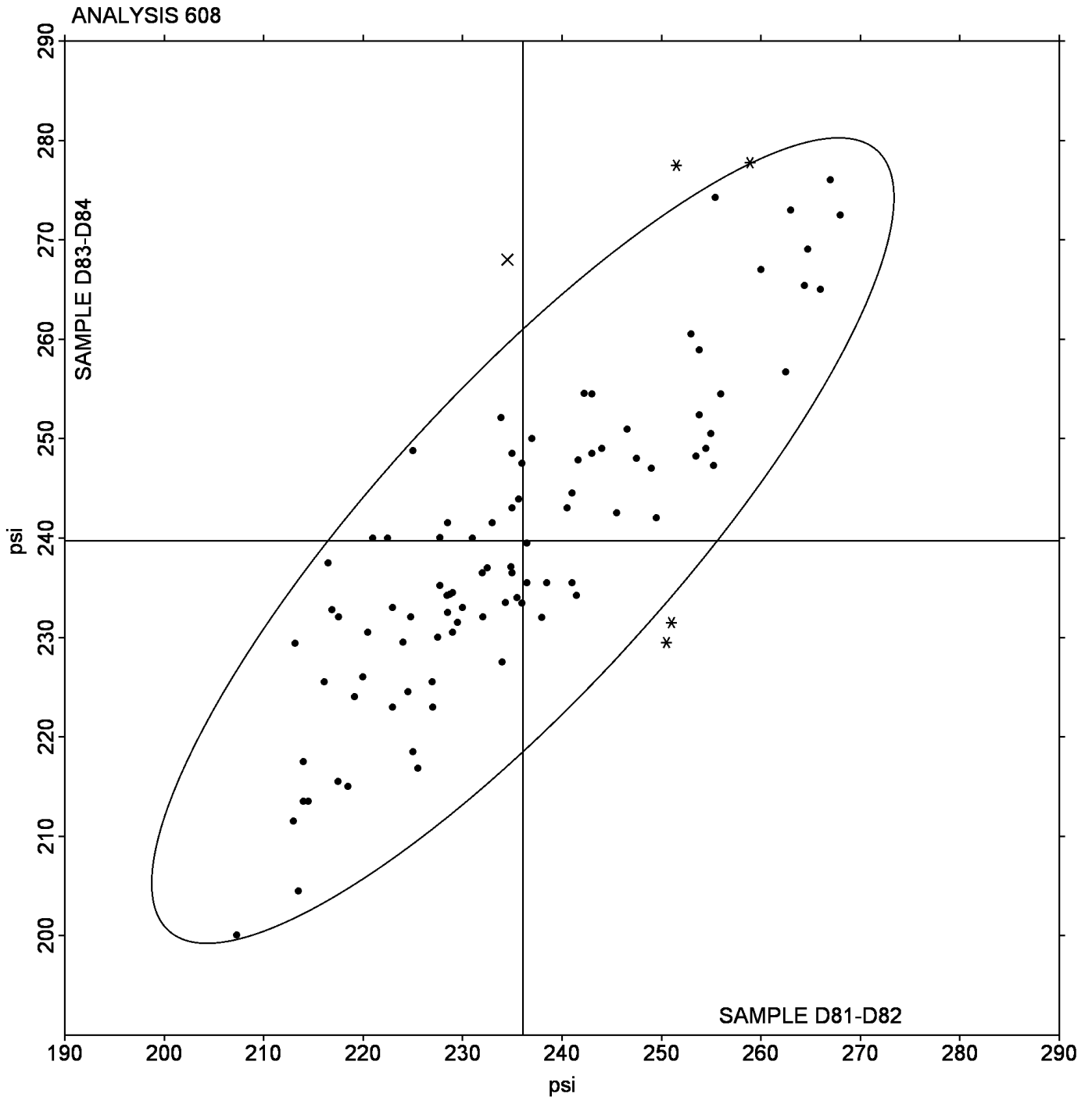
SKMLX7 (X) - Inconsistency in testing between Sample sets. Data for Sample sets D81-D82 are high.

Analysis 608

Stress at 100% Elongation (psi)

Grand Mean Sample D81-D82 = 236.06 psi

Grand Mean Sample D83-D84 = 239.75 psi



Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1BDAL7		52.60	-0.01	-0.01	52.95	0.14	0.09	ZZ
1Q4KH4		51.75	-0.86	-0.57	52.00	-0.81	-0.55	ZZ
2EYHEC		55.80	3.19	2.12	56.00	3.19	2.17	ZZ
2R12RK		53.00	0.39	0.26	53.40	0.59	0.40	ZZ
2TQ92W		49.75	-2.86	-1.90	49.60	-3.21	-2.19	ZZ
2UJ4JC		52.60	-0.01	-0.01	52.75	-0.06	-0.04	ZZ
2YHKVK		53.00	0.39	0.26	53.00	0.19	0.13	ZZ
37WQV		51.00	-1.61	-1.07	52.00	-0.81	-0.55	ZZ
4971VS		51.75	-0.86	-0.57	52.00	-0.81	-0.55	ZZ
4B4CWZ	*	51.50	-1.11	-0.74	53.00	0.19	0.13	ZZ
4VXBAR		53.00	0.39	0.26	53.00	0.19	0.13	ZZ
4WYVQE	X	59.45	6.84	4.55	59.40	6.59	4.49	ZZ
537AC9		52.20	-0.41	-0.27	51.90	-0.91	-0.62	ZZ
5736TN	X	57.50	4.89	3.26	58.50	5.69	3.87	ZZ
5P8X1Q		52.65	0.04	0.03	53.35	0.54	0.37	ZZ
5S4ET5		51.60	-1.01	-0.67	52.35	-0.46	-0.32	ZZ
5VHL5X		53.50	0.89	0.59	53.50	0.69	0.47	ZZ
67V3G1		54.20	1.59	1.06	54.60	1.79	1.22	ZZ
6LZQ2Y		52.40	-0.21	-0.14	52.80	-0.01	-0.01	ZZ
6QNEZP		55.25	2.64	1.76	55.15	2.34	1.59	ZZ
6Y2FGB		55.50	2.89	1.92	55.50	2.69	1.83	ZZ
7C3TJK		53.50	0.89	0.59	54.00	1.19	0.81	ZZ
7CJZWP		53.00	0.39	0.26	53.00	0.19	0.13	ZZ
7DD753		53.00	0.39	0.26	52.50	-0.31	-0.21	ZZ
7DN8JW		54.00	1.39	0.93	54.85	2.04	1.39	ZZ
7THNQG		52.85	0.24	0.16	53.15	0.34	0.23	ZZ
8M11N5		54.05	1.44	0.96	53.95	1.14	0.77	ZZ
8NLQE4		55.50	2.89	1.92	55.50	2.69	1.83	ZZ
8QYEBV		54.00	1.39	0.93	54.50	1.69	1.15	ZZ
8RFP91		54.50	1.89	1.26	54.50	1.69	1.15	ZZ
97VR5W		53.00	0.39	0.26	53.00	0.19	0.13	ZZ
9BGZTU		55.00	2.39	1.59	55.00	2.19	1.49	ZZ
9C3CWZ		53.50	0.89	0.59	54.00	1.19	0.81	ZZ
A4CL1R		53.50	0.89	0.59	54.00	1.19	0.81	ZZ
AML9EB		54.50	1.89	1.26	55.00	2.19	1.49	ZZ

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
BA24NT		53.00	0.39	0.26	53.00	0.19	0.13	ZZ
BFLKRC		51.00	-1.61	-1.07	51.00	-1.81	-1.23	ZZ
BJMRWV		53.00	0.39	0.26	53.50	0.69	0.47	ZZ
BP7AWJ		54.15	1.54	1.03	54.45	1.64	1.11	ZZ
CBS9KS		52.50	-0.11	-0.07	52.50	-0.31	-0.21	ZZ
CSRDJW		53.00	0.39	0.26	53.00	0.19	0.13	ZZ
D344LJ		51.40	-1.21	-0.81	51.45	-1.36	-0.93	ZZ
D5KPTT		53.50	0.89	0.59	54.50	1.69	1.15	ZZ
D8Q9Y7	*	49.50	-3.11	-2.07	50.50	-2.31	-1.58	ZZ
DXMHB		51.00	-1.61	-1.07	52.00	-0.81	-0.55	ZZ
ER98WH		52.00	-0.61	-0.41	52.50	-0.31	-0.21	ZZ
EW59FQ		50.00	-2.61	-1.74	50.00	-2.81	-1.92	ZZ
FCFPKD		51.00	-1.61	-1.07	50.50	-2.31	-1.58	ZZ
FCXT1S		53.00	0.39	0.26	53.00	0.19	0.13	ZZ
FHS4EG		54.50	1.89	1.26	54.50	1.69	1.15	ZZ
FQBGXV		51.75	-0.86	-0.57	51.80	-1.01	-0.69	ZZ
FSS5NA		51.00	-1.61	-1.07	51.00	-1.81	-1.23	ZZ
GVJGF4		53.00	0.39	0.26	53.50	0.69	0.47	ZZ
GY553A		53.50	0.89	0.59	53.00	0.19	0.13	ZZ
H3U257		54.50	1.89	1.26	55.00	2.19	1.49	ZZ
H55W5S		55.00	2.39	1.59	55.00	2.19	1.49	ZZ
HP7B5L		50.50	-2.11	-1.40	51.50	-1.31	-0.89	ZZ
JKJB5F		50.80	-1.81	-1.20	50.70	-2.11	-1.44	ZZ
JXDH8S		49.00	-3.61	-2.40	49.50	-3.31	-2.26	ZZ
JZTQ7F		51.05	-1.56	-1.04	50.40	-2.41	-1.64	ZZ
K3M4U4		53.00	0.39	0.26	53.00	0.19	0.13	ZZ
KNUUJQ		55.00	2.39	1.59	55.00	2.19	1.49	ZZ
KQY1LW		51.50	-1.11	-0.74	52.00	-0.81	-0.55	ZZ
KVF5VT		54.50	1.89	1.26	54.00	1.19	0.81	ZZ
L5NTGH		54.00	1.39	0.93	53.50	0.69	0.47	ZZ
LEKUG2		54.50	1.89	1.26	54.00	1.19	0.81	ZZ
LSETWC		53.50	0.89	0.59	53.50	0.69	0.47	ZZ
LXHEFU		53.50	0.89	0.59	54.00	1.19	0.81	ZZ
M7RPV6		50.65	-1.96	-1.30	51.05	-1.76	-1.20	ZZ
MF7WG		50.00	-2.61	-1.74	51.00	-1.81	-1.23	ZZ

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
MUDTZ2		50.50	-2.11	-1.40	51.50	-1.31	-0.89	ZZ
MURWE		53.15	0.54	0.36	53.40	0.59	0.40	ZZ
NAEU9F		54.00	1.39	0.93	54.50	1.69	1.15	ZZ
P4GGBP		51.05	-1.56	-1.04	51.15	-1.66	-1.13	ZZ
PFJ44F		52.00	-0.61	-0.41	51.95	-0.86	-0.59	ZZ
PGMXB8		54.00	1.39	0.93	54.00	1.19	0.81	ZZ
PZLMQ		55.50	2.89	1.92	55.50	2.69	1.83	ZZ
Q2YYBX		52.50	-0.11	-0.07	53.50	0.69	0.47	ZZ
Q4TPWJ		54.25	1.64	1.09	53.75	0.94	0.64	ZZ
QBR6N2		51.00	-1.61	-1.07	51.50	-1.31	-0.89	ZZ
R9A4L4		53.00	0.39	0.26	52.50	-0.31	-0.21	ZZ
RDE3KM		51.50	-1.11	-0.74	51.00	-1.81	-1.23	ZZ
RPMG42		51.70	-0.91	-0.61	51.90	-0.91	-0.62	ZZ
RX5NF1		53.00	0.39	0.26	54.00	1.19	0.81	ZZ
SMK5GS	X	40.50	-12.11	-8.06	40.50	-12.31	-8.39	ZZ
SNPD2D		52.35	-0.26	-0.17	52.30	-0.51	-0.35	ZZ
SYAYPE		53.25	0.64	0.43	53.50	0.69	0.47	ZZ
TDQXA2		54.00	1.39	0.93	54.00	1.19	0.81	ZZ
TFGKT2		51.30	-1.31	-0.87	51.20	-1.61	-1.10	ZZ
TG9LTY		52.15	-0.46	-0.31	52.60	-0.21	-0.15	ZZ
TX8SG6		52.00	-0.61	-0.41	51.50	-1.31	-0.89	ZZ
U1TD7F		53.05	0.44	0.29	53.30	0.49	0.33	ZZ
U7C7ZW		51.20	-1.41	-0.94	50.60	-2.21	-1.51	ZZ
UD2HH8		52.00	-0.61	-0.41	52.00	-0.81	-0.55	ZZ
UNEDXF		52.50	-0.11	-0.07	52.65	-0.16	-0.11	ZZ
V99MQF		51.50	-1.11	-0.74	51.00	-1.81	-1.23	ZZ
VPVDVT		51.00	-1.61	-1.07	51.25	-1.56	-1.06	ZZ
VQJVSV		53.00	0.39	0.26	53.50	0.69	0.47	ZZ
VR9QZ5		54.50	1.89	1.26	54.60	1.79	1.22	ZZ
VXET8H		51.85	-0.76	-0.51	52.70	-0.11	-0.08	ZZ
W19MC7		53.50	0.89	0.59	53.50	0.69	0.47	ZZ
WVLE1J		53.00	0.39	0.26	53.00	0.19	0.13	ZZ
X3ZYZJ		52.35	-0.26	-0.17	52.30	-0.51	-0.35	ZZ
XF88WZ		52.10	-0.51	-0.34	51.85	-0.96	-0.66	ZZ
YJQRRG		51.30	-1.31	-0.87	52.10	-0.71	-0.49	ZZ

Analysis 620

Hardness (Shore A/Type A)

WebCode	Data Flag	Sample D81-D82			Sample D83-D84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
YQLDSV		52.00	-0.61	-0.41	52.50	-0.31	-0.21	ZZ
Z1ZN88		52.50	-0.11	-0.07	53.00	0.19	0.13	ZZ
Z266UX		49.75	-2.86	-1.90	49.80	-3.01	-2.05	ZZ
ZA1ANY		49.60	-3.01	-2.00	50.00	-2.81	-1.92	ZZ
ZPFNP7		50.85	-1.76	-1.17	51.10	-1.71	-1.17	ZZ
ZSNLNT		51.00	-1.61	-1.07	52.00	-0.81	-0.55	ZZ
ZUF4VR		54.00	1.39	0.93	54.00	1.19	0.81	ZZ

Summary Statistics

Grand Means

52.610 Type A

52.813 Type A

Std Dev Btwn Labs

1.502 Type A

1.468 Type A

Statistics based on 109 of 112 reporting participants

Samples D81-D82: Polyisoprene compound, batch #1 & D83-D84: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #620

4WYVQE (X) - Data for all Samples are high. Possible Systematic Error.

5736TN (X) - Data for all Samples are high. Possible Systematic Error.

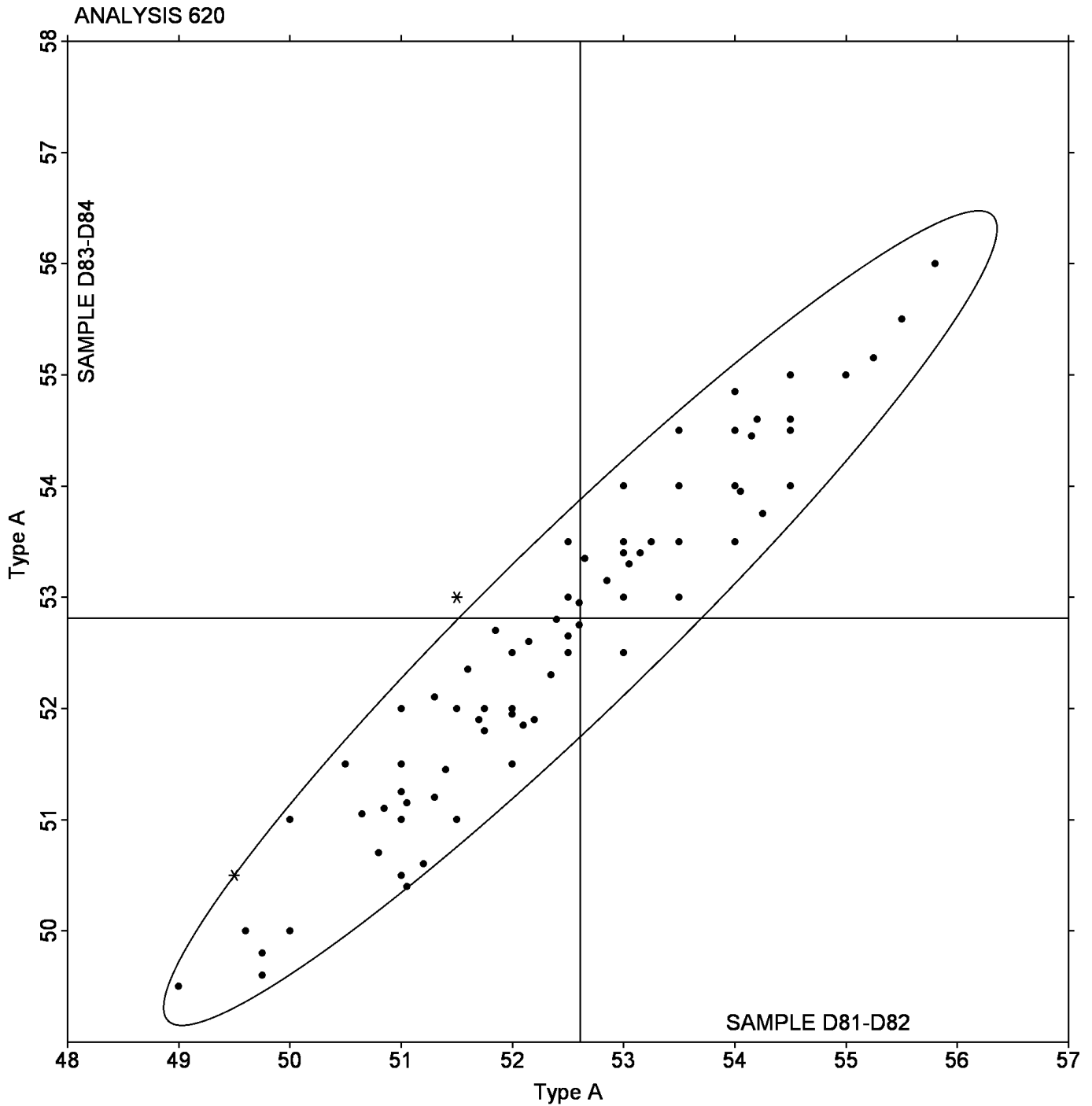
SMK5GS (X) - Data for all Samples are low.

Analysis 620

Hardness (Shore A/Type A)

Grand Mean Sample D81-D82 = 52.610 Type A

Grand Mean Sample D83-D84 = 52.813 Type A



Analysis 630

Tensile Strength: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample D81-D82			Sample M81-M82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
26MBLH		3,390.5	-97.3	-0.63	3,338.1	133.9	0.67	ZZ
3QKQCM		3,389.0	-98.7	-0.63	3,328.5	124.3	0.62	ZZ
6AC2EA		3,698.3	210.6	1.35	3,202.1	-2.1	-0.01	ZZ
719A4E		3,554.5	66.8	0.43	3,253.3	49.1	0.25	ZZ
7VWRE7		3,723.9	236.2	1.52	2,985.4	-218.8	-1.09	ZZ
87FVSG		3,265.6	-222.2	-1.43	3,019.0	-185.2	-0.92	ZZ
91755B	*	3,406.5	-81.2	-0.52	2,596.5	-607.7	-3.03	ZZ
AJ15UM		3,190.2	-297.6	-1.91	3,223.5	19.3	0.10	ZZ
AY7L6P		3,517.3	29.6	0.19	3,023.9	-180.3	-0.90	ZZ
B8EF87		3,579.2	91.5	0.59	3,181.4	-22.8	-0.11	ZZ
CGAPPX		3,395.4	-92.4	-0.59	3,246.7	42.5	0.21	ZZ
DVX84C		3,408.0	-79.7	-0.51	3,108.8	-95.4	-0.48	ZZ
E2LGLF		3,396.5	-91.2	-0.59	2,943.5	-260.7	-1.30	ZZ
FKENFE		3,385.9	-101.8	-0.65	3,273.5	69.4	0.35	ZZ
FSCG7L		3,474.5	-13.2	-0.09	2,991.0	-213.2	-1.06	ZZ
GA56ZN		3,245.5	-242.2	-1.56	2,880.5	-323.7	-1.61	ZZ
GK8EN1		3,756.5	268.7	1.73	3,280.7	76.6	0.38	ZZ
GM7UHR		3,334.5	-153.2	-0.98	3,301.0	96.8	0.48	ZZ
HHRCPJ		3,389.0	-98.7	-0.63	3,125.5	-78.7	-0.39	ZZ
KH6SFD		3,535.5	47.8	0.31	3,333.5	129.3	0.64	ZZ
KKVCH2		3,718.0	230.3	1.48	2,901.5	-302.7	-1.51	ZZ
KUJGD8		3,470.0	-17.7	-0.11	3,297.5	93.3	0.47	ZZ
MNFSFF		3,562.1	74.3	0.48	3,603.1	399.0	1.99	ZZ
N5JQ9P		3,546.5	58.8	0.38	3,388.5	184.3	0.92	ZZ
PA996S		3,459.5	-28.2	-0.18	3,380.0	175.8	0.88	ZZ
PF5KGA		3,707.9	220.2	1.41	3,509.2	305.1	1.52	ZZ
PPPM2J		3,511.5	23.8	0.15	3,371.0	166.8	0.83	ZZ
QZUSCD		3,587.0	99.3	0.64	3,306.0	101.8	0.51	ZZ
SKC1KA	X	3,602.0	114.3	0.73	2,489.5	-714.7	-3.56	ZZ
SS4KLB		3,277.0	-210.7	-1.35	3,239.0	34.8	0.17	ZZ
TSA1U9	X	2,765.5	-722.2	-4.64	2,871.9	-332.2	-1.66	ZZ
U43CSL		3,283.0	-204.7	-1.32	3,065.0	-139.2	-0.69	ZZ
UFD6AZ		3,553.5	65.7	0.42	3,256.1	52.0	0.26	ZZ
V37M4S		3,809.5	321.7	2.07	3,513.6	309.4	1.54	ZZ
VKV5NZ		3,681.0	193.3	1.24	3,284.5	80.3	0.40	ZZ

Analysis 630

Tensile Strength: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample D81-D82			Sample M81-M82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
WKU7SH		3,436.5	-51.2	-0.33	3,203.5	-0.7	0.00	ZZ
YFG88E		3,538.2	50.5	0.32	3,327.2	123.0	0.61	ZZ
ZXWZD4		3,381.5	-106.2	-0.68	3,067.5	-136.7	-0.68	ZZ

Summary Statistics			
Grand Means	3,487.74	psi	3,204.15
Std Dev Btwn Labs	155.62	psi	200.54
Statistics based on 36 of 38 reporting participants			

Summary Statistics in SI Units			
Grand Means	24.047	MPa	22.09
Std Dev Btwn Labs	1.073	MPa	1.38
Statistics based on 36 of 38 reporting participants			

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #630

SKC1KA (X) - Data for Sample set M81-M82 are low.

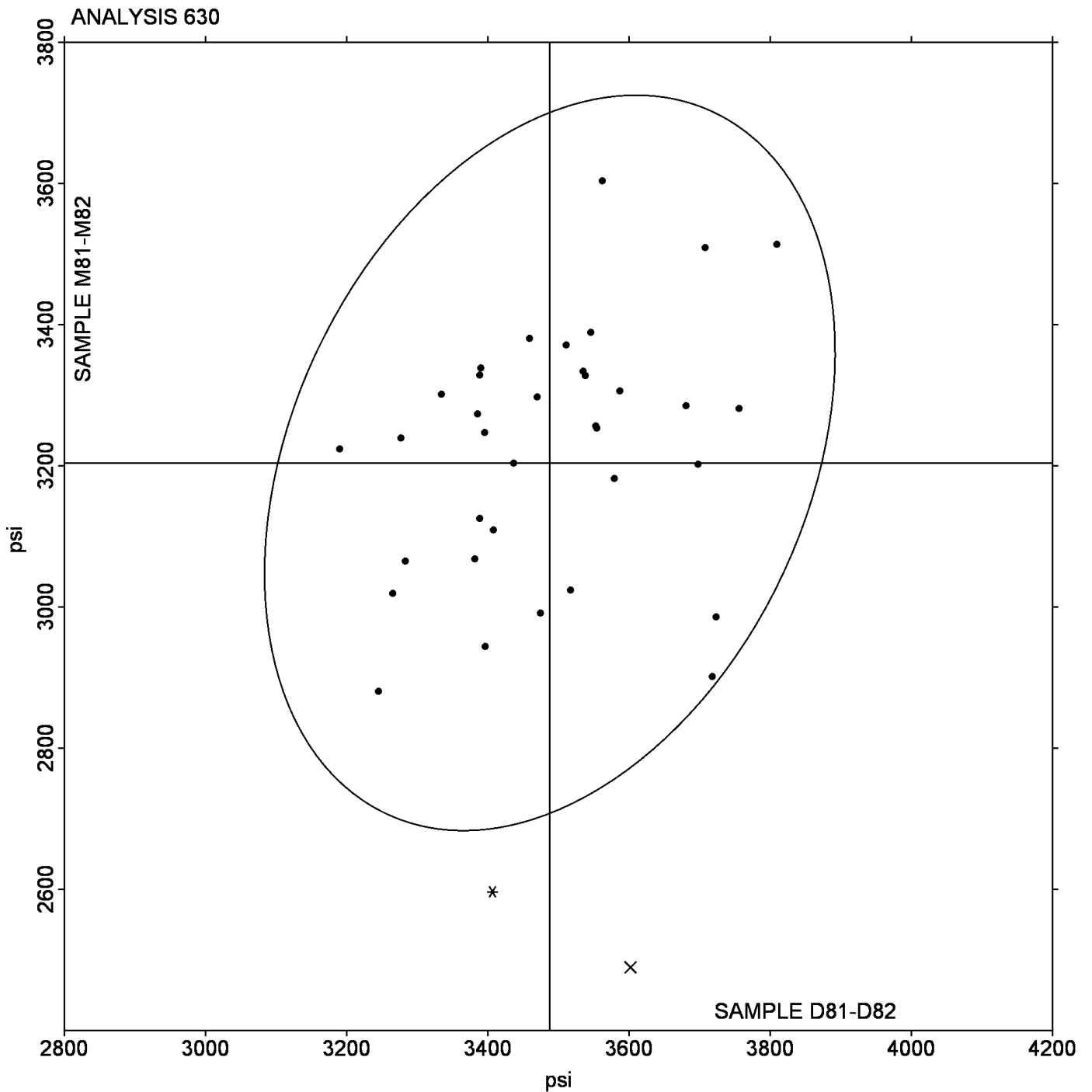
TSA1U9 (X) - Data for Sample set D81-D82 are low.

Analysis 630

Tensile Strength: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample D81-D82 = 3,487.74 psi

Grand Mean Sample M81-M82 = 3,204.15 psi



Analysis 631

Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

WebCode	Data Flag	Sample D81-D82			Sample M81-M82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
15Q1B4		632.0	35.3	1.09	588.0	13.4	0.52	ZZ
1GA8BP		636.6	39.9	1.24	593.1	18.5	0.72	ZZ
4CY33E		576.6	-20.1	-0.62	542.6	-32.0	-1.24	ZZ
4PFK5Y		582.5	-14.2	-0.44	592.5	17.9	0.70	ZZ
54CN79		619.0	22.3	0.69	579.9	5.3	0.21	ZZ
5E7C1H	*	650.9	54.2	1.68	642.6	68.0	2.65	ZZ
692LEX		581.0	-15.7	-0.49	575.0	0.4	0.02	ZZ
6HAZDS	*	676.5	79.7	2.47	603.1	28.5	1.11	ZZ
6XUYP8		580.0	-16.7	-0.52	571.5	-3.1	-0.12	ZZ
72CXSZ		588.5	-8.2	-0.25	569.0	-5.6	-0.22	ZZ
76KFYE		610.5	13.8	0.43	576.5	1.9	0.07	ZZ
7BWAXV		520.0	-76.7	-2.38	529.0	-45.6	-1.77	ZZ
84CA6C		614.0	17.3	0.54	578.0	3.4	0.13	ZZ
8Z8B8U		643.8	47.1	1.46	613.6	39.1	1.52	ZZ
95874Y		607.5	10.8	0.33	576.0	1.4	0.06	ZZ
9KBD2G		605.5	8.8	0.27	571.0	-3.6	-0.14	ZZ
C66UV6		593.5	-3.2	-0.10	584.5	9.9	0.39	ZZ
D5XRBG		572.0	-24.7	-0.77	564.5	-10.1	-0.39	ZZ
D6RNMG		539.5	-57.3	-1.78	516.9	-57.7	-2.25	ZZ
EGSCJQ		589.5	-7.2	-0.22	589.0	14.4	0.56	ZZ
FVBPRJ		583.5	-13.2	-0.41	586.5	11.9	0.46	ZZ
FVPWET		569.7	-27.0	-0.84	559.8	-14.7	-0.57	ZZ
H2VXGX		559.0	-37.7	-1.17	532.0	-42.6	-1.66	ZZ
M9UMZ7		598.5	1.8	0.06	590.5	15.9	0.62	ZZ
MD9WD		548.6	-48.1	-1.49	541.4	-33.1	-1.29	ZZ
MHXFQ		579.5	-17.2	-0.53	569.0	-5.6	-0.22	ZZ
ML6DPV		601.0	4.3	0.13	564.5	-10.1	-0.39	ZZ
MY9K7Y		634.5	37.8	1.17	608.5	33.9	1.32	ZZ
PHUDCD		614.0	17.3	0.54	585.0	10.4	0.41	ZZ
RM5LW		621.4	24.7	0.77	581.4	6.9	0.27	ZZ
SVR4M9		584.5	-12.2	-0.38	560.5	-14.1	-0.55	ZZ
TSHA72		606.0	9.3	0.29	588.0	13.4	0.52	ZZ
UV6JC4		544.0	-52.7	-1.64	525.0	-49.6	-1.93	ZZ
XB7QFD		619.0	22.3	0.69	603.5	28.9	1.13	ZZ
XM4RT5		623.0	26.3	0.82	583.5	8.9	0.35	ZZ

Analysis 631

Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

WebCode	Data Flag	Sample D81-D82			Sample M81-M82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
YEYV9R		582.5	-14.2	-0.44	546.5	-28.1	-1.09	ZZ
Z5HWDC		584.5	-12.2	-0.38	567.0	-7.6	-0.30	ZZ
ZBFH8T		602.5	5.8	0.18	585.0	10.4	0.41	ZZ

Summary Statistics

Grand Means

596.72 percent

574.58 percent

Std Dev Btwn Labs

32.24 percent

25.69 percent

Statistics based on 38 of 38 reporting participants

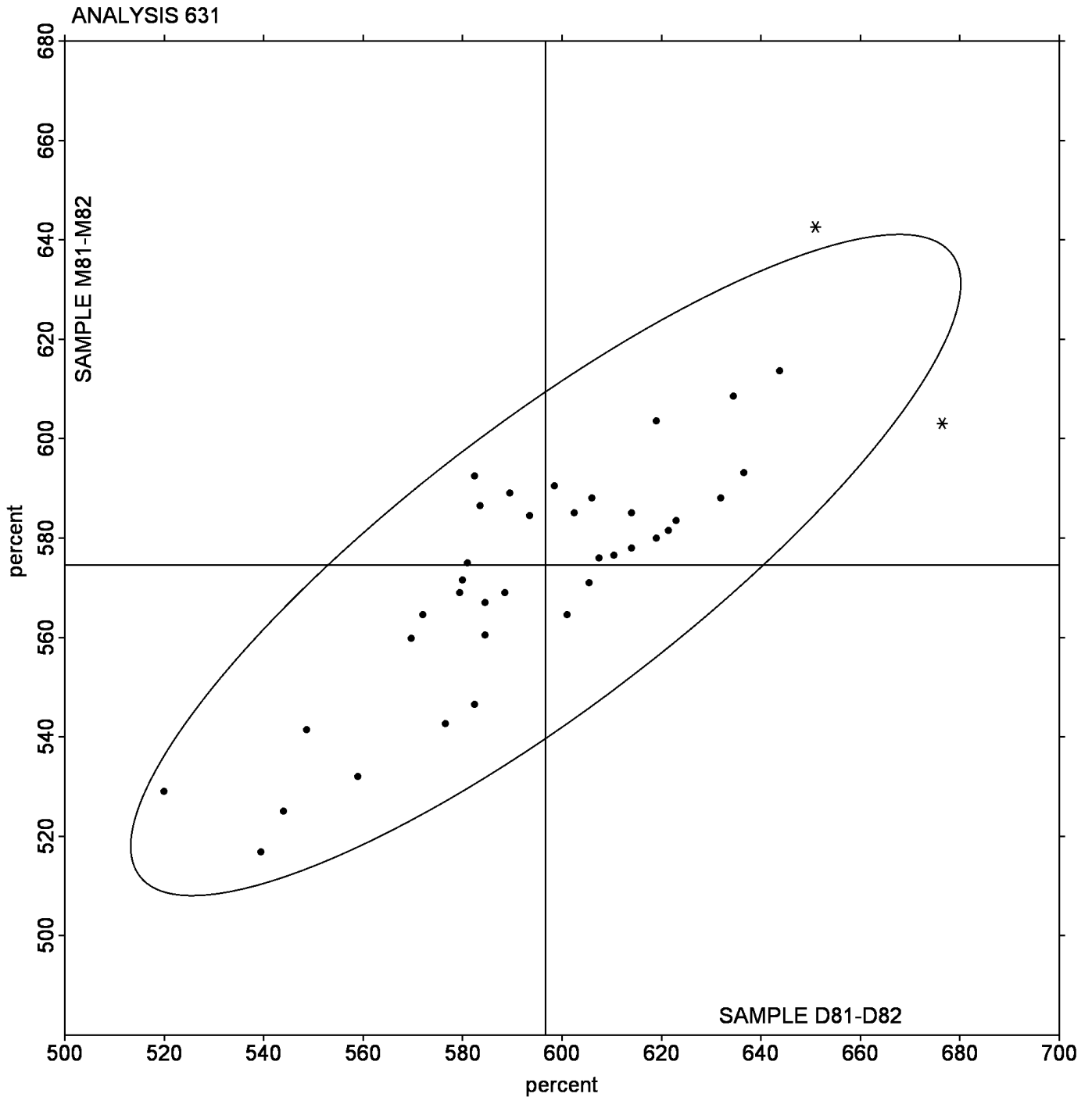
All samples : Polyisoprene compound, batch #1

Analysis 631

Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

Grand Mean Sample D81-D82 = 596.72 percent

Grand Mean Sample M81-M82 = 574.58 percent



Analysis 632

Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample D81-D82			Sample M81-M82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
14YKUL		1,070.5	-37.0	-0.44	1,029.0	-67.6	-0.62	ZZ
218RCW		1,199.5	92.0	1.10	1,157.4	60.8	0.56	ZZ
2MPF63		1,040.5	-67.0	-0.80	905.5	-191.1	-1.76	ZZ
2N2B8M		1,238.0	130.5	1.56	1,338.0	241.4	2.22	ZZ
2Y7HMS		1,301.0	193.5	2.31	1,236.0	139.4	1.28	ZZ
3C3STB		1,158.5	51.0	0.61	1,149.0	52.4	0.48	ZZ
3SGX4E		1,207.0	99.5	1.19	1,102.0	5.4	0.05	ZZ
61WSRJ		1,050.5	-57.0	-0.68	1,036.5	-60.1	-0.55	ZZ
66VGSV		1,090.0	-17.5	-0.21	1,010.8	-85.8	-0.79	ZZ
6Z585R		1,124.5	17.0	0.20	1,229.8	133.2	1.23	ZZ
8MUHC7		1,166.0	58.5	0.70	1,205.5	108.9	1.00	ZZ
9H5HFH		1,057.5	-50.0	-0.60	1,085.0	-11.6	-0.11	ZZ
ATLPQS		1,002.5	-105.0	-1.25	1,019.0	-77.6	-0.71	ZZ
AZLAE6		1,051.9	-55.6	-0.66	1,119.0	22.3	0.21	ZZ
CHMETU		1,160.0	52.5	0.63	1,254.0	157.4	1.45	ZZ
DYT2FU		1,166.8	59.3	0.71	1,173.4	76.7	0.71	ZZ
ELATAN	X	1,126.0	18.5	0.22	730.5	-366.1	-3.37	ZZ
GC17BB		1,131.3	23.8	0.28	1,095.0	-1.6	-0.01	ZZ
GFQLM		1,101.5	-6.0	-0.07	1,166.0	69.4	0.64	ZZ
J4LG6G		1,080.5	-27.0	-0.32	1,028.0	-68.6	-0.63	ZZ
KVHBGZ		1,080.4	-27.1	-0.32	1,142.0	45.3	0.42	ZZ
KY817C		895.5	-212.0	-2.53	913.0	-183.7	-1.69	ZZ
MDSY4J		1,110.5	3.0	0.04	1,157.5	60.9	0.56	ZZ
NRP578		1,303.5	196.0	2.34	1,300.5	203.9	1.88	ZZ
PBLQE5		1,107.5	0.0	0.00	1,007.5	-89.1	-0.82	ZZ
QE79YM		1,192.5	85.0	1.01	1,134.5	37.9	0.35	ZZ
RJ5A1U		1,025.7	-81.8	-0.98	1,093.6	-3.0	-0.03	ZZ
RR1C6S	X	1,123.0	15.5	0.18	786.5	-310.1	-2.86	ZZ
T259WL		1,117.9	10.4	0.12	957.6	-139.0	-1.28	ZZ
TM45A9		1,117.2	9.7	0.12	1,110.4	13.8	0.13	ZZ
V8DMJU		950.8	-156.7	-1.87	980.3	-116.3	-1.07	ZZ
VFMVBA		1,059.0	-48.5	-0.58	865.0	-231.6	-2.13	ZZ
VUUCW		1,085.6	-21.9	-0.26	1,120.4	23.8	0.22	ZZ
WJ9KVF		1,090.0	-17.5	-0.21	1,121.9	25.3	0.23	ZZ
X88EKD		1,088.0	-19.5	-0.23	1,121.0	24.4	0.22	ZZ

Analysis 632

Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample D81-D82			Sample M81-M82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
XLUQ25		1,138.4	30.9	0.37	1,097.8	1.2	0.01	ZZ
Y8U7D4		1,039.0	-68.5	-0.82	1,060.5	-36.1	-0.33	ZZ
YBQZVN		1,070.5	-37.0	-0.44	955.8	-140.8	-1.30	ZZ

Summary Statistics			
Grand Means	1,107.50 psi	1,096.62 psi	
Std Dev Btwn Labs	83.85 psi	108.59 psi	
Statistics based on 36 of 38 reporting participants			

Summary Statistics in SI Units			
Grand Means	7.6359 MPa	7.56 MPa	
Std Dev Btwn Labs	0.5781 MPa	0.75 MPa	
Statistics based on 36 of 38 reporting participants			

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #632

ELATAN (X) - Data for Sample set M81-M82 are low.

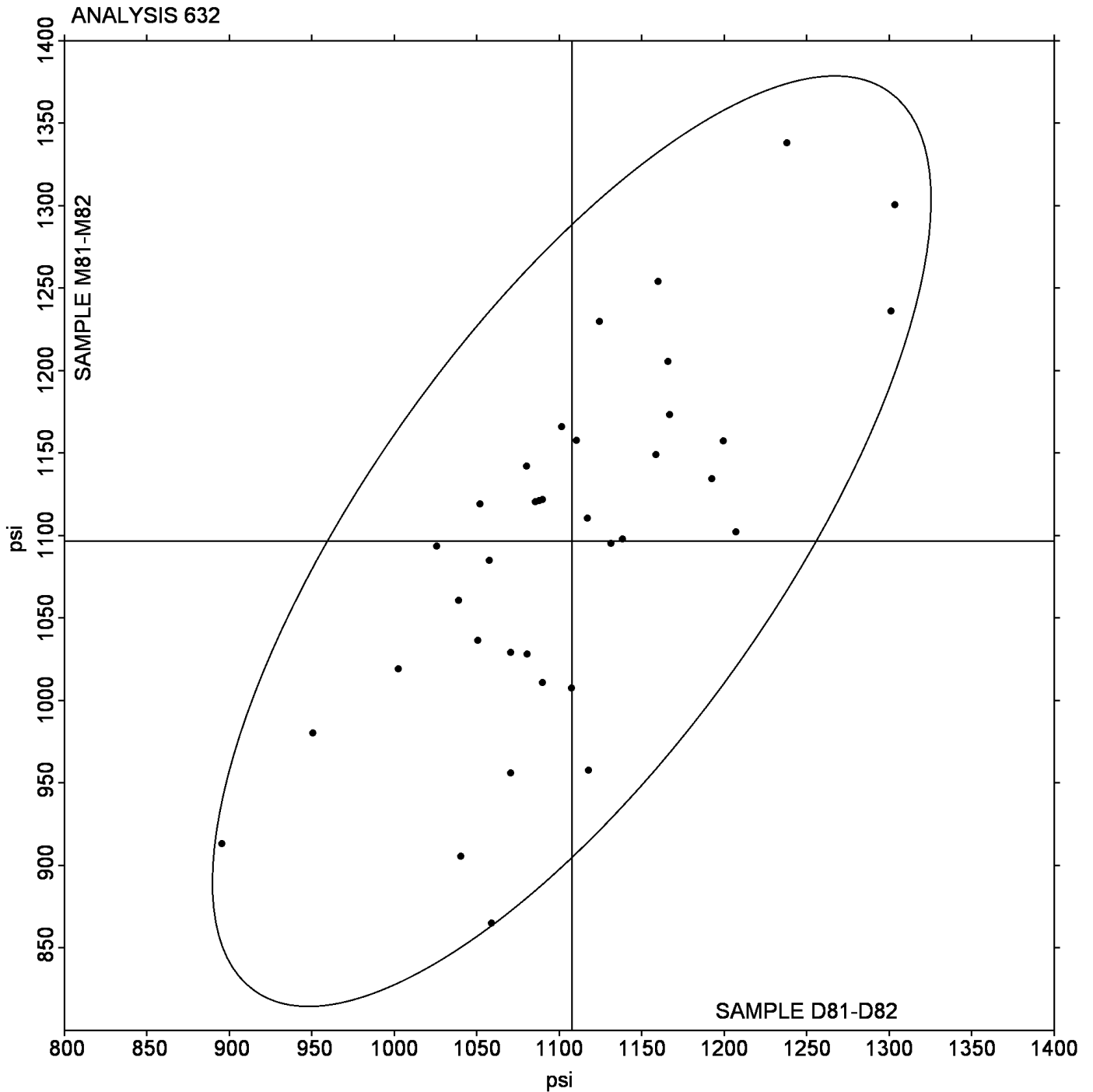
RR1C6S (X) - Data for Sample set M81-M82 are low.

Analysis 632

Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample D81-D82 = 1,107.50 psi

Grand Mean Sample M81-M82 = 1,096.62 psi



Analysis 633

Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample D81-D82			Sample M81-M82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
16UGYT		240.5	5.6	0.41	223.5	-11.8	-0.41	ZZ
3GZPMJ		241.7	6.8	0.49	230.2	-5.2	-0.18	ZZ
452CLQ		228.4	-6.4	-0.47	248.7	13.4	0.47	ZZ
4AAPM		235.7	0.8	0.06	243.7	8.4	0.29	ZZ
5C117N		246.6	11.7	0.85	254.5	19.2	0.67	ZZ
69DWUV		236.0	1.1	0.08	231.5	-3.8	-0.13	ZZ
6W5W9R		233.9	-1.0	-0.07	263.0	27.7	0.96	ZZ
7K68T7		237.0	2.1	0.16	233.0	-2.3	-0.08	ZZ
7QTE5U	*	235.0	0.1	0.01	161.5	-73.8	-2.57	ZZ
8N728X		241.0	6.1	0.45	250.0	14.7	0.51	ZZ
9E56KJ		222.5	-12.4	-0.90	230.0	-5.3	-0.19	ZZ
AKZWN		219.2	-15.7	-1.14	215.9	-19.4	-0.68	ZZ
B5CQ27		228.8	-6.1	-0.44	247.7	12.3	0.43	ZZ
BVWUZZ		227.0	-7.9	-0.57	248.0	12.7	0.44	ZZ
BZ236C	*	266.0	31.1	2.27	304.5	69.2	2.41	ZZ
DGX7QR		220.0	-14.9	-1.08	197.0	-38.3	-1.34	ZZ
DWPVC		228.5	-6.4	-0.46	221.5	-13.8	-0.48	ZZ
E1P5PN		214.0	-20.9	-1.52	224.0	-11.3	-0.39	ZZ
ECD38Z		234.9	0.0	0.00	202.1	-33.2	-1.16	ZZ
EKWLP6		224.5	-10.4	-0.75	223.0	-12.3	-0.43	ZZ
FG6S7G		258.9	24.0	1.75	258.9	23.6	0.82	ZZ
GA7P6Z		249.0	14.1	1.03	236.0	0.7	0.02	ZZ
HJSJDD		260.0	25.1	1.83	268.5	33.2	1.16	ZZ
HZFJ2J		232.5	-2.4	-0.17	253.0	17.7	0.62	ZZ
KZXWEL	*	268.0	33.1	2.41	306.0	70.7	2.46	ZZ
LJAH5E		234.3	-0.5	-0.04	225.5	-9.9	-0.34	ZZ
M4SJ6S		238.0	3.1	0.23	248.5	13.2	0.46	ZZ
M5DKX3		214.5	-20.4	-1.48	217.8	-17.6	-0.61	ZZ
MVSZLJ		230.0	-4.9	-0.35	188.0	-47.3	-1.65	ZZ
PSL7SW		213.2	-21.7	-1.58	221.6	-13.8	-0.48	ZZ
QN255X		227.5	-7.4	-0.54	233.5	-1.8	-0.06	ZZ
R6VUUQ		225.0	-9.8	-0.72	249.1	13.8	0.48	ZZ
RP1X82		232.1	-2.8	-0.20	232.1	-3.3	-0.11	ZZ
SJ8R45		213.5	-21.4	-1.56	220.0	-15.3	-0.53	ZZ
U3LTNP		234.0	-0.9	-0.06	178.5	-56.8	-1.98	ZZ

Analysis 633

Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

WebCode	Data Flag	Sample D81-D82			Sample M81-M82			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
ULFZQH		243.0	8.1	0.59	237.0	1.7	0.06	ZZ
VGPBBF		238.5	3.6	0.27	253.5	18.2	0.63	ZZ
XHAWT		251.5	16.6	1.21	262.0	26.7	0.93	ZZ

Summary Statistics

Grand Means

234.85 psi

235.33 psi

Std Dev Btwn Labs

13.73 psi

28.70 psi

Statistics based on 38 of 38 reporting participants

Summary Statistics in SI Units

Grand Means

1.6192 MPa

1.62 MPa

Std Dev Btwn Labs

0.0947 MPa

0.20 MPa

Statistics based on 38 of 38 reporting participants

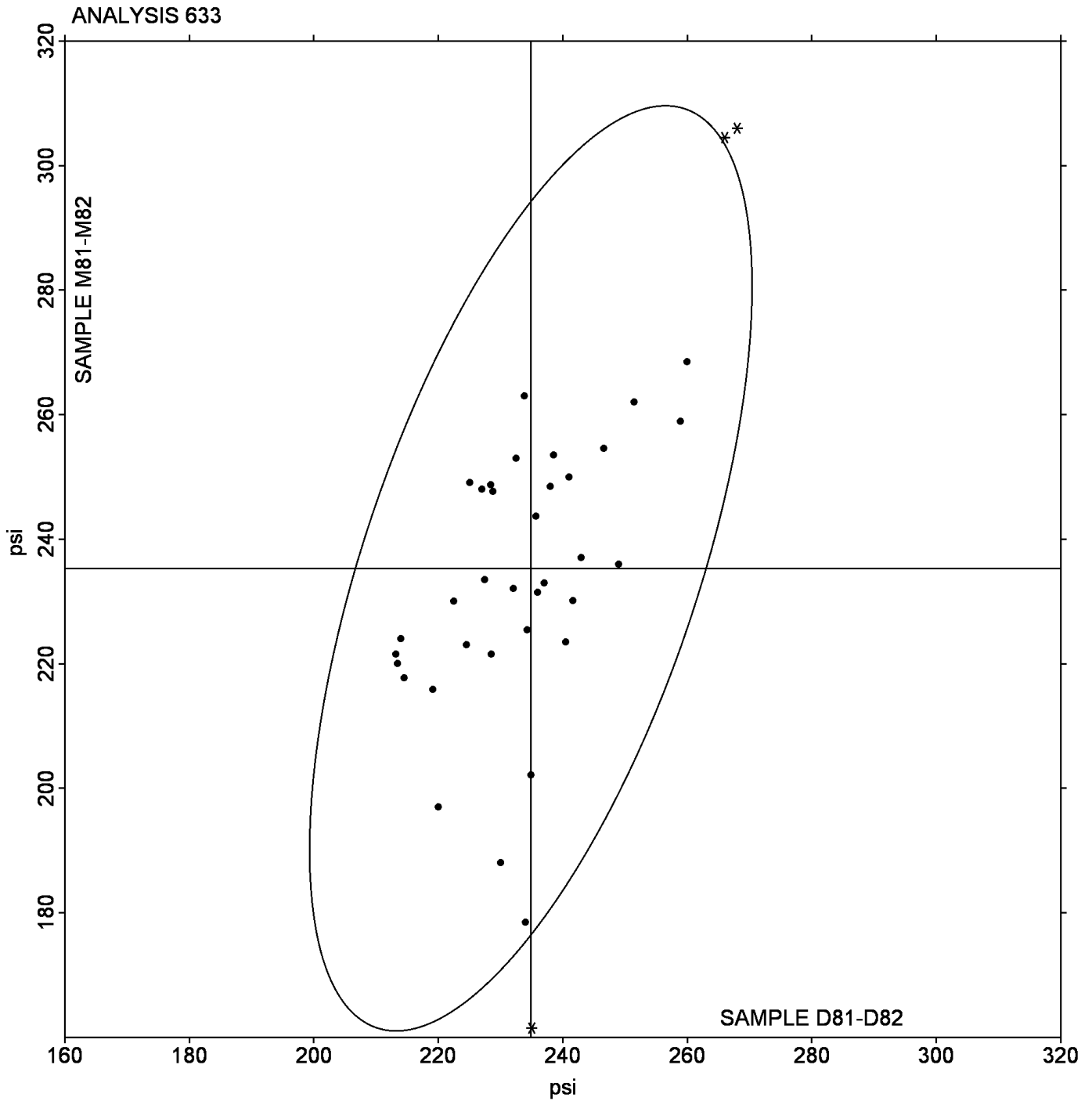
All samples : Polyisoprene compound, batch #1

Analysis 633

Stress at 100% Elongation: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample D81-D82 = 234.85 psi

Grand Mean Sample M81-M82 = 235.33 psi



Rubber Interlaboratory Testing Program

Analysis 660

Mooney Viscosity: 4-minute readings (ML 1 + 4)

WebCode	Data Flag	Sample V81-V82			Sample V83-V84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1FCMNY		85.42	-0.85	-0.96	46.35	-0.07	-0.09	MR
1W4EER		85.32	-0.95	-1.07	46.10	-0.32	-0.44	MR
2DH9CR		86.02	-0.25	-0.28	46.40	-0.02	-0.02	MR
2PXHZD		86.98	0.71	0.81	47.19	0.77	1.07	MR
2SMA8G		84.73	-1.53	-1.73	45.93	-0.48	-0.67	MR
3FQAV9		86.03	-0.23	-0.26	45.48	-0.93	-1.30	MR
3K2M3R		87.48	1.22	1.38	46.15	-0.26	-0.37	MM
44NNHC		85.92	-0.35	-0.39	46.32	-0.10	-0.14	MR
48AB7J		85.33	-0.93	-1.06	45.68	-0.73	-1.02	MR
4PHU3F		86.02	-0.25	-0.28	46.08	-0.33	-0.46	MR
6H2Q2L		85.77	-0.50	-0.56	45.57	-0.85	-1.18	MR
7NM4BK		86.82	0.55	0.63	45.10	-1.32	-1.83	MR
8ZP38W	*	85.63	-0.63	-0.72	48.20	1.78	2.48	MM
A6D9HG	X	89.80	3.54	4.01	46.35	-0.07	-0.09	MR
CG4N63		86.07	-0.20	-0.22	45.98	-0.43	-0.60	MR
D2QQY		85.62	-0.64	-0.73	46.54	0.12	0.17	MR
EFAZAK		86.87	0.60	0.68	46.60	0.18	0.25	MR
EG6ZJR		86.43	0.17	0.19	46.05	-0.37	-0.51	MR
ELDMRL		86.55	0.29	0.32	46.05	-0.37	-0.51	MR
F8GP8G		88.05	1.79	2.02	47.15	0.73	1.02	MR
F8WFTL		86.02	-0.25	-0.28	46.42	0.00	0.00	MR
FX6YQX		86.34	0.08	0.09	45.16	-1.26	-1.75	MP
GJDKVX		88.38	2.12	2.40	47.30	0.88	1.23	MP
GXF2WX		85.77	-0.50	-0.56	45.88	-0.53	-0.74	MR
HTLZS3		87.30	1.04	1.18	47.38	0.97	1.34	TV
JKGA14		85.20	-1.06	-1.21	45.28	-1.13	-1.58	MR
K266BP		87.70	1.44	1.63	46.80	0.38	0.52	MR
MFT47D		85.48	-0.78	-0.89	46.47	0.05	0.07	MR
MJMFK9		86.77	0.50	0.57	46.97	0.55	0.76	MR
NDPVLD		85.28	-0.98	-1.11	46.00	-0.42	-0.58	MP
NU2L8C		87.20	0.94	1.06	46.75	0.33	0.46	MR
QKVSEJ		85.78	-0.48	-0.55	46.43	0.02	0.02	MR
TE5QBG		85.93	-0.33	-0.38	47.52	1.10	1.53	MR
U3XPJ3	X	92.01	5.75	6.51	50.51	4.09	5.68	TV
VPSA3K	X	90.60	4.34	4.91	49.25	2.83	3.94	MZ

Analysis 660

Mooney Viscosity: 4-minute readings (ML 1 + 4)

WebCode	Data Flag	Sample V81-V82			Sample V83-V84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
W5NCT8		86.50	0.24	0.27	47.17	0.75	1.04	MR
W9LXG5		85.43	-0.84	-0.95	46.38	-0.04	-0.06	TV
X3THG6		87.65	1.39	1.57	47.65	1.23	1.71	MR
Z313ZW		85.73	-0.53	-0.60	46.56	0.14	0.20	MR

Summary Statistics	
Grand Means	
86.264 ML 1 + 4	46.417 ML 1 + 4
Std Dev Btwn Labs	
0.882 ML 1 + 4	0.720 ML 1 + 4
Statistics based on 36 of 39 reporting participants	

Samples V81-V82: NBR & V83-V84: Butyl

Comments on assigned Data Flags for Test #660

A6D9HG (X) - Data for Sample set V81-V82 are high.

U3XPJ3 (X) - Data for all Samples are high.

VPSA3K (X) - Data for all Samples are high.

Instrument Code Listing

660 Mooney Viscosity: 4-minute readings (ML 1 + 4)

Instruments:

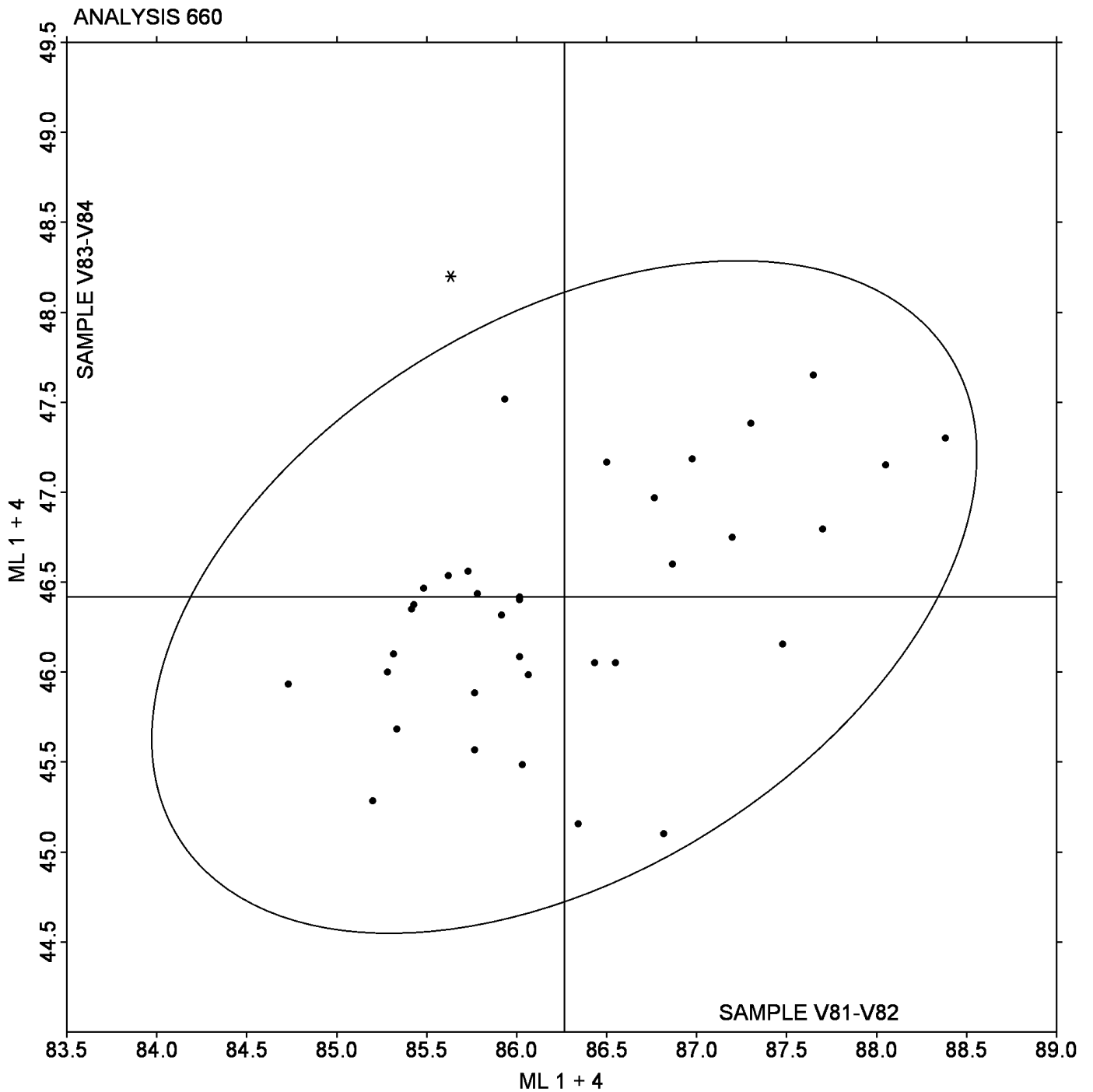
- (ML) Alpha Technologies/Monsanto model not specified
- (MP) Monsanto Compact Mooney Viscometer
- (MZ) Rebuilt Monsanto Mooney Viscometer
- (TV) Tech Pro Visc Tech (any model)
- (XX) Instrument make/model not specified by lab
- (MM) Alpha Technologies Model 1xxx or OSM
- (MR) Alpha Technologies Model MV2000/MV2000E
- (SF) Scott STI (any model)
- (XA) Special In-House Instrument

Analysis 660

Mooney Viscosity: 4-minute readings (ML 1 + 4)

Grand Mean Sample V81-V82 = 86.264 ML 1 + 4

Grand Mean Sample V83-V84 = 46.417 ML 1 + 4



Analysis 661

Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

WebCode	Data Flag	Sample V81-V82			Sample V83-V84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
6CD1N3		87.70	1.44	1.65	45.60	0.89	1.41	MR
7U9USD		86.55	0.28	0.33	44.47	-0.24	-0.38	MR
8LKDYJ		85.32	-0.95	-1.09	44.60	-0.11	-0.17	MR
A2Y9X4		86.98	0.71	0.81	45.16	0.45	0.72	MR
AXWU6L		88.05	1.78	2.05	44.75	0.04	0.07	MR
BREJ2A		85.33	-0.93	-1.07	44.13	-0.57	-0.91	MR
CZVGM2		88.38	2.12	2.43	45.32	0.61	0.96	MP
DNUQJL		85.48	-0.78	-0.90	44.85	0.14	0.22	MR
E97QHL		87.20	0.93	1.07	45.35	0.64	1.02	MR
ECMY9C	X	89.80	3.53	4.06	44.83	0.13	0.20	MR
EMJ86L		85.28	-0.98	-1.13	43.97	-0.74	-1.18	MM
ENKTFU		85.62	-0.64	-0.74	44.99	0.28	0.44	MR
GL6NUV		86.34	0.08	0.09	43.46	-1.24	-1.97	MP
HFV66M		86.50	0.23	0.27	45.60	0.89	1.41	MR
JQF1NN		85.93	-0.33	-0.38	45.90	1.19	1.89	MR
K6G337		86.02	-0.25	-0.29	44.43	-0.27	-0.44	MR
KAY7X		85.92	-0.35	-0.40	44.97	0.26	0.41	MR
KUXUSJ		85.63	-0.63	-0.73	44.78	0.08	0.12	MM
M6XXV6		87.48	1.21	1.39	44.69	-0.02	-0.03	MM
N6LTB8	X	92.01	5.74	6.59	49.98	5.27	8.36	TV
NVQNN		84.73	-1.53	-1.76	44.33	-0.37	-0.59	MR
NXLGXA		86.87	0.60	0.69	44.67	-0.04	-0.07	MR
P3BDZ7		86.77	0.50	0.58	45.17	0.46	0.73	MR
Q3CFQP		86.07	-0.20	-0.23	44.15	-0.56	-0.88	MR
Q7B5BC		87.65	1.38	1.59	46.02	1.31	2.07	MR
QLVGJ6		85.73	-0.53	-0.61	45.00	0.29	0.46	MR
R1VB4T		85.42	-0.85	-0.97	44.80	0.09	0.15	MR
R4523M		85.77	-0.50	-0.57	44.02	-0.69	-1.10	MR
RBER3E		86.43	0.17	0.19	44.23	-0.47	-0.75	MR
STAJDZ		85.77	-0.50	-0.57	44.30	-0.41	-0.65	MR
USHQX7		86.02	-0.25	-0.29	45.10	0.39	0.62	MR
UUVE4H		86.03	-0.23	-0.27	44.13	-0.57	-0.91	MR
VNMGP		85.78	-0.48	-0.55	44.78	0.08	0.12	MR
W83YBU	*	86.82	0.55	0.63	43.18	-1.52	-2.42	MR
WT1GXN		86.02	-0.25	-0.29	44.27	-0.44	-0.70	MR

Analysis 661

Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

WebCode	Data Flag	Sample V81-V82			Sample V83-V84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
X7G8HG	X	90.60	4.33	4.98	46.77	2.06	3.26	MZ
XZAWV4		85.43	-0.84	-0.96	44.91	0.21	0.33	TV

Summary Statistics

Grand Means

86.265 ML 1 + 8

44.708 ML 1 + 8

Std Dev Btwn Labs

0.871 ML 1 + 8

0.631 ML 1 + 8

Statistics based on 34 of 37 reporting participants

Please refer to the sample information provided for Analysis 660.

Comments on assigned Data Flags for Test #661

ECMY9C (X) - Data for Sample set V81-V82 are high.

N6LTB8 (X) - Data for all Samples are high.

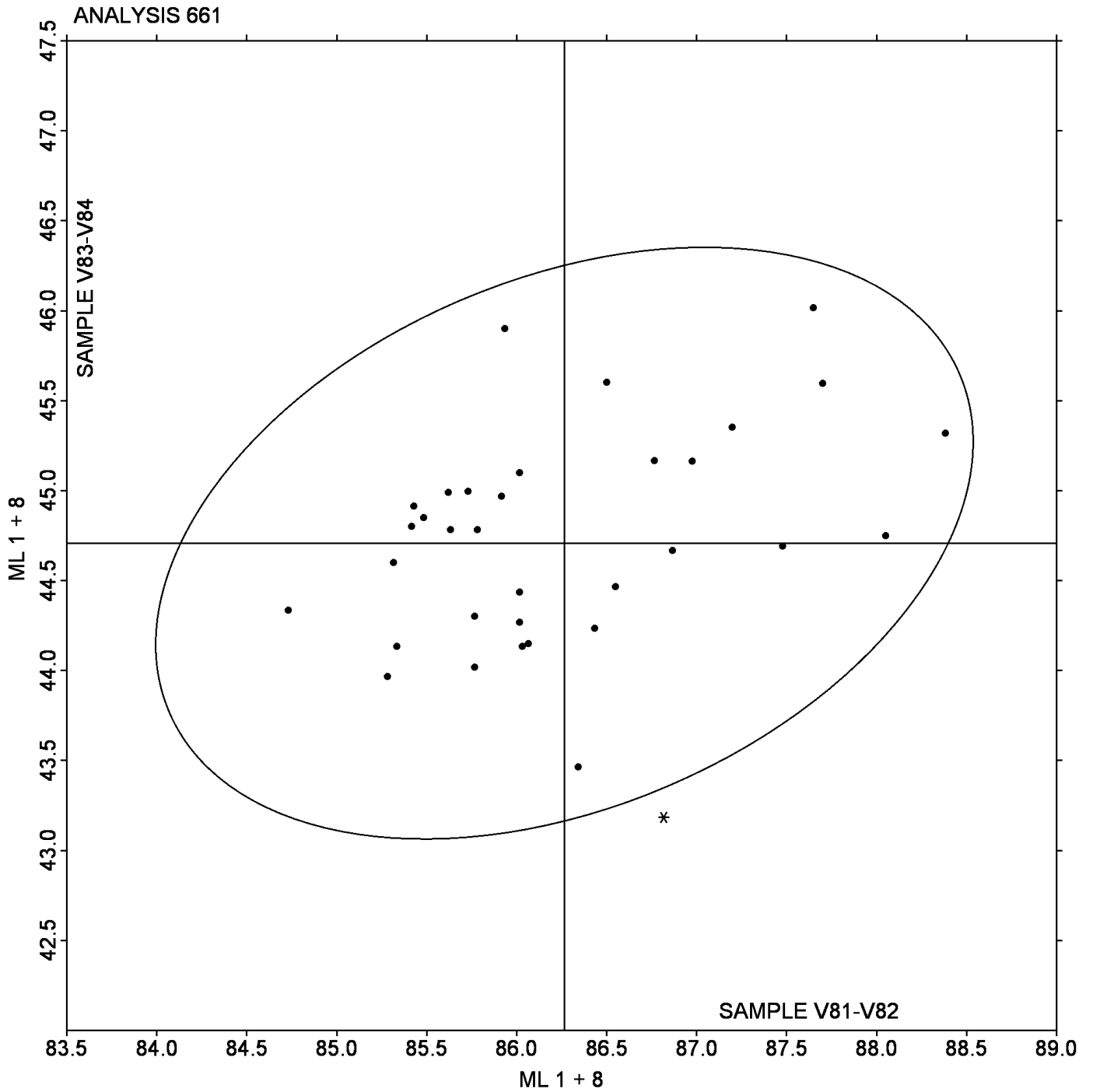
X7G8HG (X) - Data for all Samples are high.

Analysis 661

Mooney Viscosity: 4-min NBR/SBR & 8-min butyl readings (ML)

Grand Mean Sample V81-V82 = 86.265 ML 1 + 8

Grand Mean Sample V83-V84 = 44.708 ML 1 + 8



Analysis 662

Mooney Stress Relaxation: t80 (seconds)

WebCode	Data Flag	Sample V81-V82			Sample V83-V84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
4ZF6DH		17.63	-7.24	-1.60	4.600	-0.260	-0.29	MR
77VAK7		25.27	0.39	0.09	4.673	-0.187	-0.21	XX
AKGGN	M	26.91	2.04	0.45	No data reported for this sample			XX
B7HN63		35.07	10.19	2.25	7.217	2.356	2.65	MP
C97YPE		26.22	1.34	0.30	4.683	-0.177	-0.20	MR
DCK7J		23.83	-1.04	-0.23	4.600	-0.260	-0.29	MR
G28X8H		23.92	-0.95	-0.21	4.550	-0.310	-0.35	MR
TLZJXA		23.36	-1.51	-0.33	4.323	-0.537	-0.60	XX
VJAK7J		23.84	-1.04	-0.23	4.635	-0.225	-0.25	MR
X8HPVY	X	324.10	299.23	66.16	544.800	539.940	606.05	MR
XTPXCH		24.72	-0.15	-0.03	4.460	-0.400	-0.45	XX

Summary Statistics

Grand Means

24.873 seconds

4.8602 seconds

Std Dev Btwn Labs

4.523 seconds

0.8909 seconds

Statistics based on 9 of 11 reporting participants

Samples V81-V82: NBR & V83-V84: Butyl

Comments on assigned Data Flags for Test #662

AKGGNY (M) - Data not reported for Sample set V83-V84.

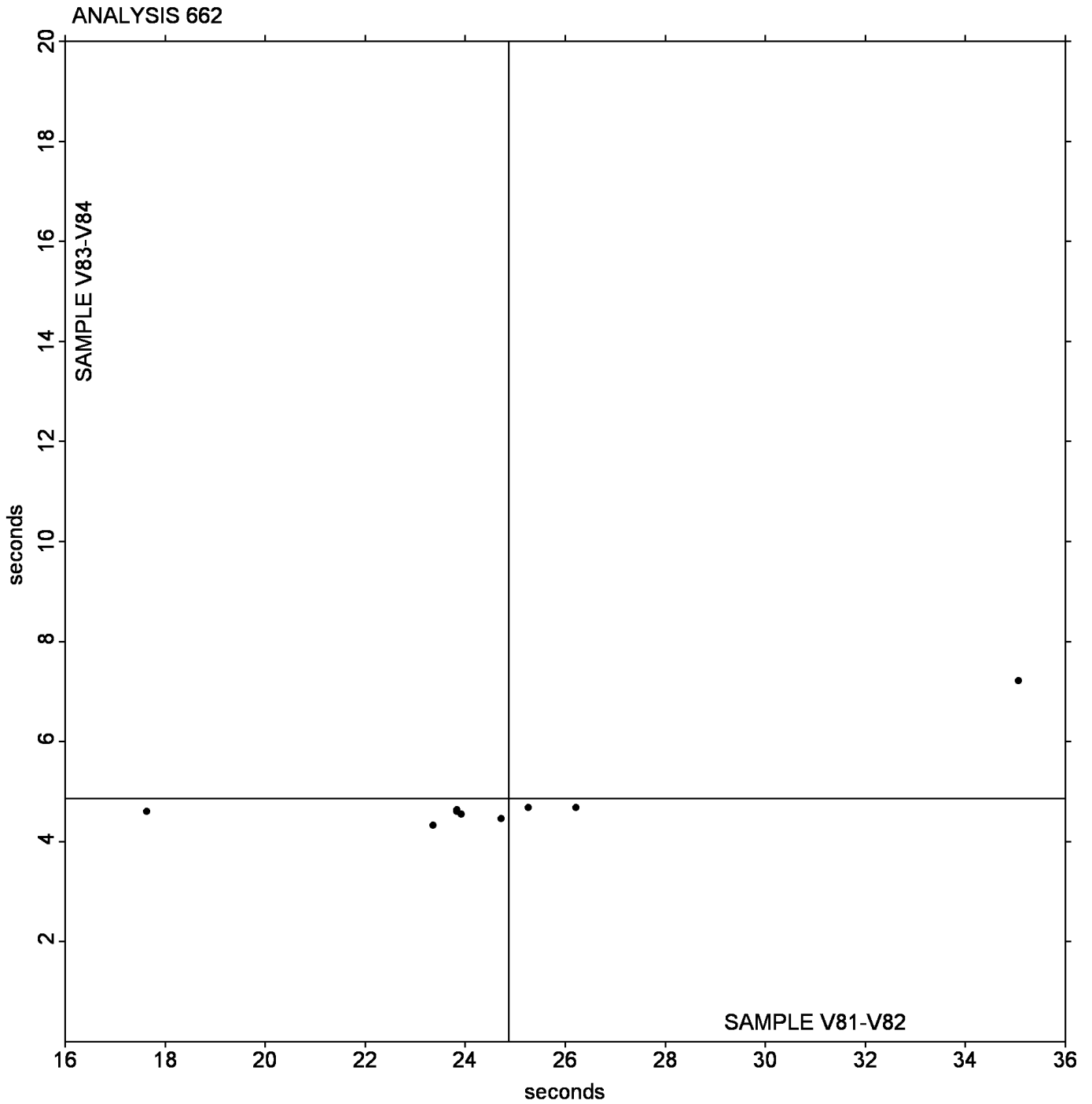
X8HPVY (X) - Data for all Samples are high.

Analysis 662

Mooney Stress Relaxation: t80 (seconds)

Grand Mean Sample V81-V82 = 24.873 seconds

Grand Mean Sample V83-V84 = 4.8602 seconds



Analysis 663

Mooney Stress Relaxation: X30 (percent)

WebCode	Data Flag	Sample V81-V82			Sample V83-V84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
4R54SH		83.45	1.87	2.53	97.57	0.93	1.85	MR
DET8AG		81.46	-0.13	-0.17	96.86	0.22	0.44	MR
J8FTTV		81.09	-0.50	-0.67	96.37	-0.27	-0.55	XX
P3HAWQ		81.26	-0.33	-0.44	96.46	-0.18	-0.36	XX
P9RGY3		80.90	-0.69	-0.93	95.99	-0.65	-1.30	MR
PJJEV9		81.52	-0.07	-0.09	96.44	-0.20	-0.41	MR
QADYDP		81.52	-0.06	-0.08	96.46	-0.18	-0.37	MR
RUGFPB		81.62	0.03	0.05	97.27	0.63	1.27	XX
YVZEJZ		81.45	-0.13	-0.18	96.35	-0.29	-0.58	MR

Summary Statistics

Grand Means

81.584 percent

96.640 percent

Std Dev Btwn Labs

0.738 percent

0.500 percent

Statistics based on 9 of 9 reporting participants

Samples V81-V82: NBR & V83-V84: Butyl

Analysis 664

Mooney Stress Relaxation: Area under curve (M-s)

WebCode	Data Flag	Sample V81-V82			Sample V83-V84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
9MF8ES		1,713.8	-17.5	-0.93	164.8	-33.3	-1.54	XX
C8GLE8	X	178.4	-1,552.9	-82.41	57.4	-140.8	-6.51	XX
CCXFDK		1,741.3	10.0	0.53	216.5	18.3	0.85	MR
CEHAS2		1,738.2	6.9	0.37	206.0	7.8	0.36	MR
FYQH5H		1,718.4	-12.9	-0.69	209.5	11.4	0.53	MR
QXRAFP		1,761.1	29.8	1.58	214.7	16.5	0.76	XX
ZP12MV		1,715.0	-16.3	-0.87	177.5	-20.7	-0.96	MR

Summary Statistics

Grand Means

1,731.30 M-s

198.16 M-s

Std Dev Btwn Labs

18.84 M-s

21.62 M-s

Statistics based on 6 of 7 reporting participants

Samples V81-V82: NBR & V83-V84: Butyl

Comments on assigned Data Flags for Test #664

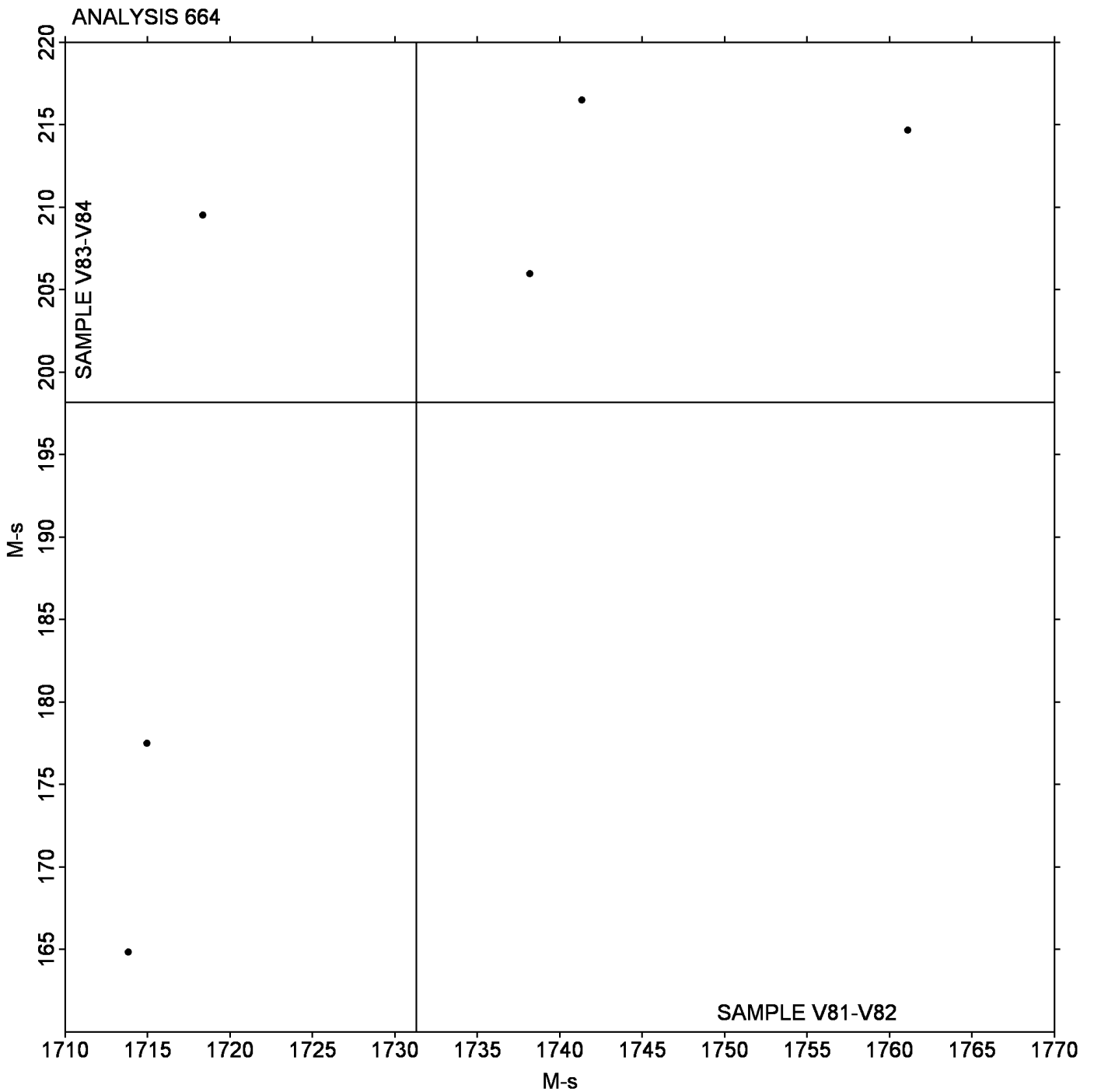
C8GLE8 (X) - Extreme data for both Sample sets.

Analysis 664

Mooney Stress Relaxation: Area under curve (M-s)

Grand Mean Sample V81-V82 = 1,731.30 M-s

Grand Mean Sample V83-V84 = 198.16 M-s



Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample Z81-Z82			Sample Z83-Z84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
3Q64IZ		1.867	0.033	0.22	2.145	0.043	0.24	ZZ
3TQSHW		2.112	0.278	1.85	2.450	0.348	1.94	ZZ
5SWAVE		1.757	-0.077	-0.51	2.085	-0.017	-0.09	ZZ
5XWR7E		1.670	-0.164	-1.09	1.832	-0.270	-1.50	ZZ
5YDYA2		1.703	-0.131	-0.87	2.113	0.012	0.06	ZZ
B35E3H		1.628	-0.206	-1.37	1.917	-0.185	-1.03	ZZ
DHB8NB		2.040	0.206	1.37	2.417	0.315	1.75	ZZ
EHVXDG		2.010	0.176	1.17	2.297	0.195	1.09	ZZ
EPCRLF	X	1.773	-0.061	-0.40	0.832	-1.270	-7.07	ZZ
GR6GJC		1.743	-0.091	-0.60	2.012	-0.090	-0.50	ZZ
L9GR3E		1.697	-0.137	-0.91	1.968	-0.133	-0.74	ZZ
NDT8G2		1.978	0.144	0.96	2.200	0.098	0.55	ZZ
PXHS6T		1.978	0.144	0.96	2.210	0.108	0.60	ZZ
RG3FDB		1.738	-0.096	-0.64	1.920	-0.182	-1.01	ZZ
SK9XRD		1.900	0.066	0.44	2.110	0.008	0.05	ZZ
UAV9SQ		1.770	-0.064	-0.43	1.930	-0.172	-0.96	ZZ
ZSV6SU		1.750	-0.084	-0.56	2.022	-0.080	-0.45	ZZ

		Summary Statistics	
Grand Means	1.8339 minutes	2.1017 minutes	
Stnd Dev Btwn Labs	0.1499 minutes	0.1797 minutes	
Statistics based on 16 of 17 reporting participants			

Samples Z81-Z82: EPDM compound #1 & Z83-Z84: EPDM compound #2

Comments on assigned Data Flags for Test #669

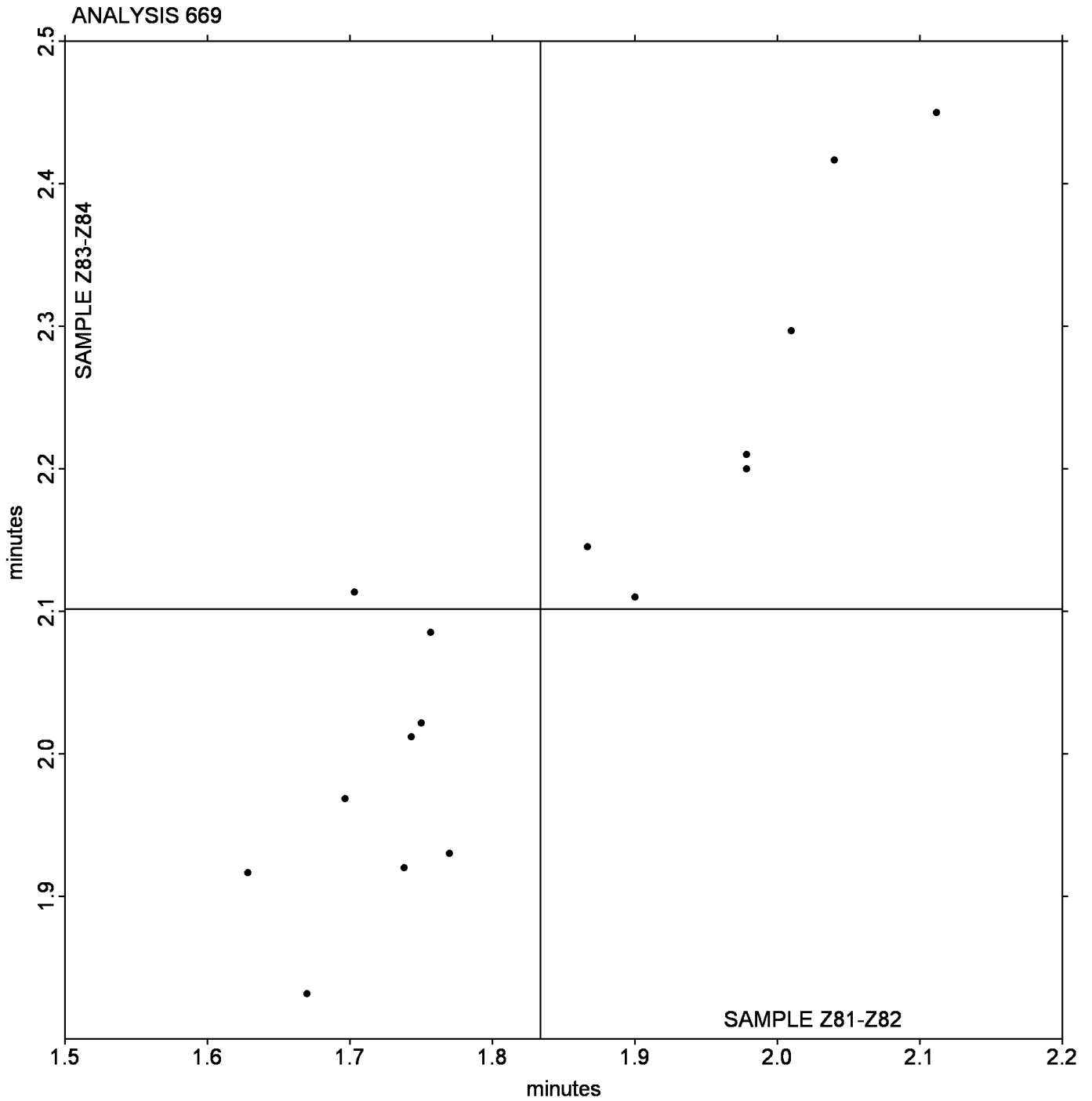
EPCRLF (X) - Data for Sample set Z83-Z84 are low.

Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample Z81-Z82 = 1.8339 minutes

Grand Mean Sample Z83-Z84 = 2.1017 minutes



Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample Z81-Z82			Sample Z83-Z84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2F4XPR		1.073	-0.275	-2.28	1.168	-0.452	-1.85	ZZ
5JD5K1		1.473	0.125	1.04	1.847	0.227	0.93	ZZ
631PTY		1.363	0.015	0.13	1.557	-0.063	-0.26	ZZ
6SPRHV		1.257	-0.092	-0.76	1.417	-0.203	-0.83	ZZ
85VWPK		1.282	-0.067	-0.55	1.560	-0.060	-0.25	ZZ
C98SG5		1.300	-0.048	-0.40	1.618	-0.002	-0.01	ZZ
DL14FG	*	1.507	0.158	1.31	2.318	0.698	2.86	ZZ
DQQMA		1.317	-0.032	-0.26	1.477	-0.143	-0.59	ZZ
ETYCRA		1.432	0.083	0.69	1.657	0.037	0.15	ZZ
HE66NB		1.300	-0.048	-0.40	1.630	0.010	0.04	ZZ
JM9MX9		1.357	0.008	0.07	1.593	-0.027	-0.11	ZZ
LBAENV		1.485	0.137	1.13	1.698	0.078	0.32	ZZ
LZMQA3		1.632	0.283	2.35	1.953	0.333	1.37	ZZ
NT6PHC		1.255	-0.093	-0.77	1.515	-0.105	-0.43	ZZ
P2YPYV		1.303	-0.045	-0.37	1.423	-0.197	-0.81	ZZ
QTJTBU		1.358	0.010	0.08	1.567	-0.053	-0.22	ZZ
UP6K1C		1.333	-0.015	-0.12	1.798	0.178	0.73	ZZ
XR4XE3		1.340	-0.008	-0.07	1.593	-0.027	-0.11	ZZ
ZN92MY		1.250	-0.098	-0.81	1.388	-0.232	-0.95	ZZ

Summary Statistics	
Grand Means	1.3482 minutes
Std Dev Btwn Labs	0.1206 minutes
	1.6199 minutes
	0.2439 minutes
Statistics based on 19 of 19 reporting participants	

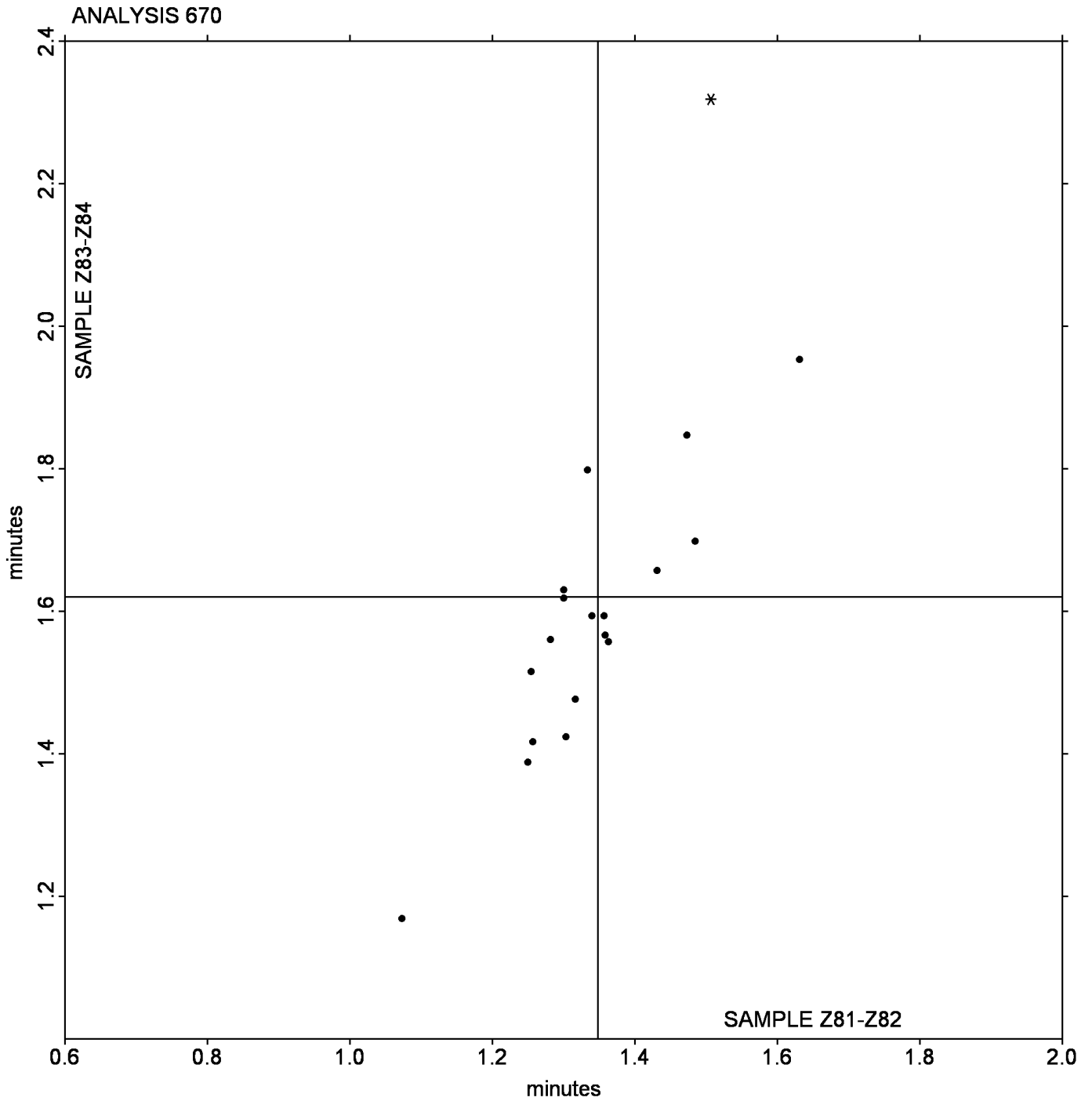
Samples Z81-Z82: EPDM compound #1 & Z83-Z84: EPDM compound #2

Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample Z81-Z82 = 1.3482 minutes

Grand Mean Sample Z83-Z84 = 1.6199 minutes



Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample Z81-Z82			Sample Z83-Z84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1NWQSF		3.628	0.239	0.99	4.523	0.225	0.84	ZZ
3DGYET		3.717	0.327	1.36	4.547	0.249	0.93	ZZ
3VBHMU		3.048	-0.342	-1.42	3.855	-0.443	-1.65	ZZ
49GT6E		3.333	-0.057	-0.24	4.258	-0.040	-0.15	ZZ
4DLY3E		3.287	-0.103	-0.43	4.073	-0.225	-0.84	ZZ
4LQLE2		3.485	0.095	0.40	4.612	0.314	1.17	ZZ
5RKUH1		3.150	-0.240	-1.00	4.038	-0.260	-0.97	ZZ
767BJL		3.243	-0.147	-0.61	4.012	-0.287	-1.07	ZZ
8S4KHW		3.258	-0.132	-0.55	4.223	-0.075	-0.28	ZZ
9LCPYQ		3.928	0.539	2.24	4.942	0.644	2.40	ZZ
AP5DQG		3.143	-0.247	-1.03	4.232	-0.067	-0.25	ZZ
BA79D4		3.553	0.164	0.68	4.460	0.162	0.60	ZZ
C79KUG		3.252	-0.138	-0.58	4.097	-0.202	-0.75	ZZ
CESTKB		3.687	0.297	1.24	4.472	0.174	0.65	ZZ
CLZ7NG		3.380	-0.010	-0.04	4.450	0.152	0.57	ZZ
L2ML9D		3.068	-0.322	-1.34	4.092	-0.207	-0.77	ZZ
M2QD7D		3.613	0.224	0.93	4.493	0.195	0.73	ZZ
R88AKA		3.258	-0.132	-0.55	4.078	-0.220	-0.82	ZZ
RGRJND		3.520	0.130	0.54	4.452	0.154	0.57	ZZ
SNJBWR		3.243	-0.147	-0.61	4.055	-0.243	-0.91	ZZ

Summary Statistics	
Grand Means	3.3898 minutes 4.2982 minutes
Std Dev Btwn Labs	0.2399 minutes 0.2680 minutes
Statistics based on 20 of 20 reporting participants	

Samples Z81-Z82: EPDM compound #1 & Z83-Z84: EPDM compound #2

Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample Z81-Z82			Sample Z83-Z84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1UR9K4		13.75	0.42	0.36	8.537	-0.333	-0.27	ZZ
1ZG8W4		13.28	-0.05	-0.04	9.895	1.025	0.83	ZZ
24AGZQ		13.05	-0.28	-0.24	8.113	-0.757	-0.61	ZZ
5KYZ1N		13.45	0.12	0.10	7.142	-1.728	-1.39	ZZ
6C7YGH		14.37	1.04	0.90	8.690	-0.180	-0.14	ZZ
7J3PGT		13.49	0.15	0.13	8.580	-0.290	-0.23	ZZ
84Y17X		14.25	0.92	0.80	9.323	0.453	0.37	ZZ
BM4F9N		12.24	-1.10	-0.95	9.595	0.725	0.58	ZZ
BUGK27		13.08	-0.25	-0.22	9.500	0.630	0.51	ZZ
C8B8JK	*	9.93	-3.41	-2.95	7.562	-1.308	-1.05	ZZ
FDYZNY		13.36	0.03	0.02	7.077	-1.793	-1.44	ZZ
L3F9UU		12.97	-0.37	-0.32	9.040	0.170	0.14	ZZ
N7MQ3U		12.73	-0.60	-0.52	7.748	-1.122	-0.90	ZZ
PU5J5U		13.04	-0.30	-0.26	7.770	-1.100	-0.89	ZZ
SJWUY1		12.80	-0.53	-0.46	9.838	0.968	0.78	ZZ
T771Q6		14.14	0.80	0.70	9.362	0.492	0.40	ZZ
ULMH96		13.57	0.23	0.20	7.867	-1.003	-0.81	ZZ
XPDV7T	*	16.21	2.88	2.49	12.333	3.463	2.79	ZZ
YXKCM		13.87	0.53	0.46	10.095	1.225	0.99	ZZ
Z2YX24		13.08	-0.25	-0.22	9.333	0.463	0.37	ZZ

Summary Statistics			
Grand Means	13.332 minutes	8.8700 minutes	
Std Dev Btwn Labs	1.153 minutes	1.2415 minutes	
Statistics based on 20 of 20 reporting participants			

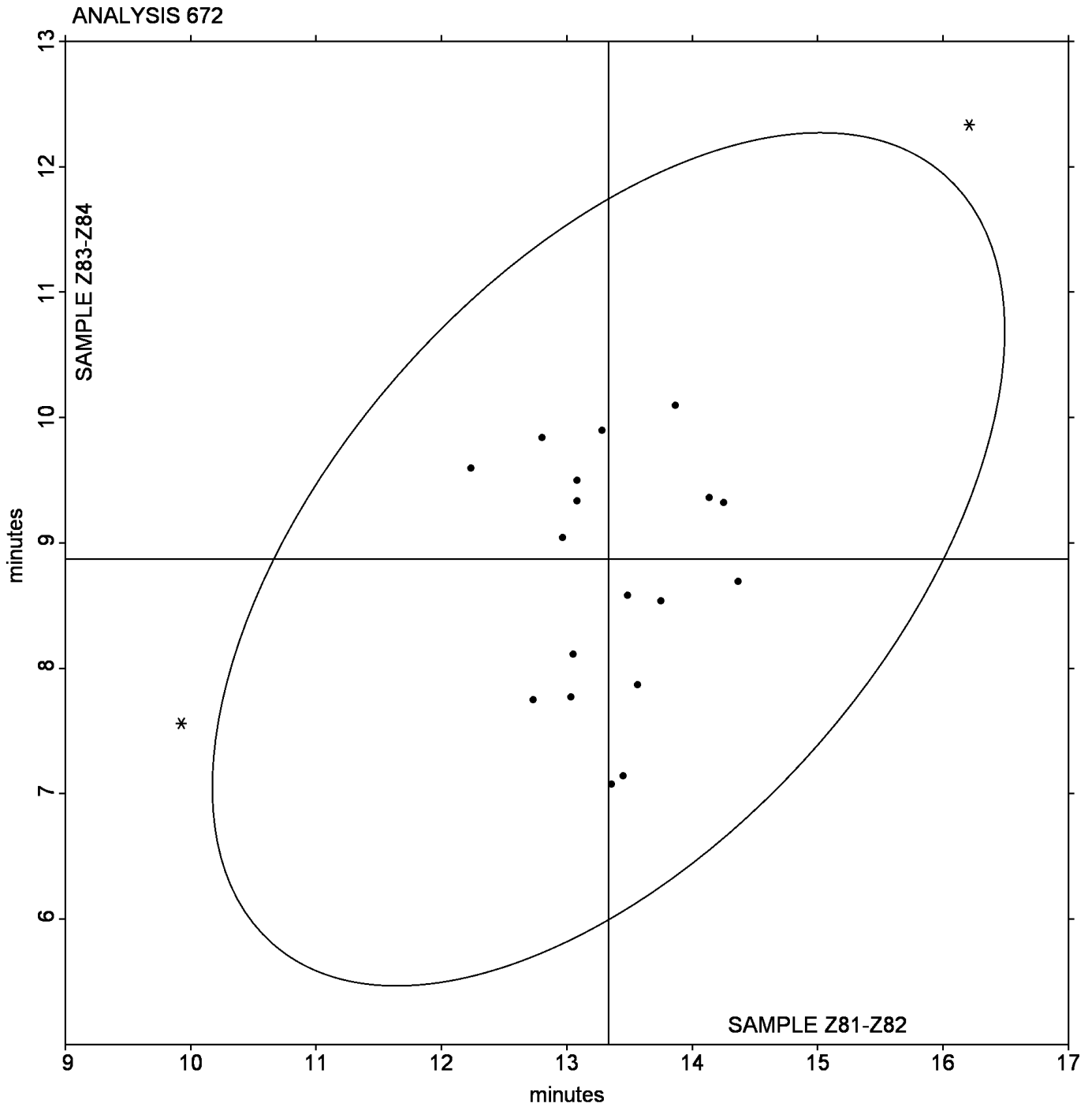
Samples Z81-Z82: EPDM compound #1 & Z83-Z84: EPDM compound #2

Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample Z81-Z82 = 13.332 minutes

Grand Mean Sample Z83-Z84 = 8.8700 minutes



Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample Z81-Z82			Sample Z83-Z84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2PJRXE		6.203	-0.802	-0.34	12.81	0.48	0.11	ZZ
2VHCTV		5.677	-1.329	-0.57	9.61	-2.73	-0.65	ZZ
5CUURL		7.242	0.236	0.10	11.15	-1.19	-0.28	ZZ
AEYNQC		7.095	0.089	0.04	9.93	-2.41	-0.58	ZZ
BQCD8P		5.520	-1.486	-0.64	8.51	-3.83	-0.92	ZZ
CEHDGG		6.857	-0.149	-0.06	14.52	2.18	0.52	ZZ
CYG9HZ		6.145	-0.861	-0.37	12.70	0.37	0.09	ZZ
DD6HG5		7.258	0.252	0.11	12.88	0.54	0.13	ZZ
DJ9KAJ	*	15.070	8.064	3.46	26.68	14.34	3.44	ZZ
G992FE		6.718	-0.287	-0.12	13.95	1.62	0.39	ZZ
GKE18E		5.810	-1.196	-0.51	13.24	0.91	0.22	ZZ
KWL958		6.082	-0.924	-0.40	11.48	-0.86	-0.21	ZZ
MC1W84		11.867	4.861	2.09	18.41	6.07	1.46	ZZ
MU579U		6.355	-0.651	-0.28	9.65	-2.69	-0.64	ZZ
Q5U8B8		5.985	-1.021	-0.44	10.58	-1.76	-0.42	ZZ
S4JTNR		5.837	-1.169	-0.50	9.07	-3.26	-0.78	ZZ
S7C85L		6.147	-0.859	-0.37	10.76	-1.57	-0.38	ZZ
S7HQUQ		5.638	-1.367	-0.59	8.75	-3.59	-0.86	ZZ
SPRPB7		6.002	-1.004	-0.43	8.82	-3.52	-0.84	ZZ
UT2B89		6.607	-0.399	-0.17	13.23	0.90	0.21	ZZ

Summary Statistics	
Grand Means	
7.0056 lbf.in	12.334 lbf.in
Std Dev Btwn Labs	
2.3299 lbf.in	4.174 lbf.in
Statistics based on 20 of 20 reporting participants	

Summary Statistics in SI Units	
Grand Means	
7.9153 dN.m	13.936 dN.m
Std Dev Btwn Labs	
2.6325 dN.m	4.716 dN.m
Statistics based on 20 of 20 reporting participants	

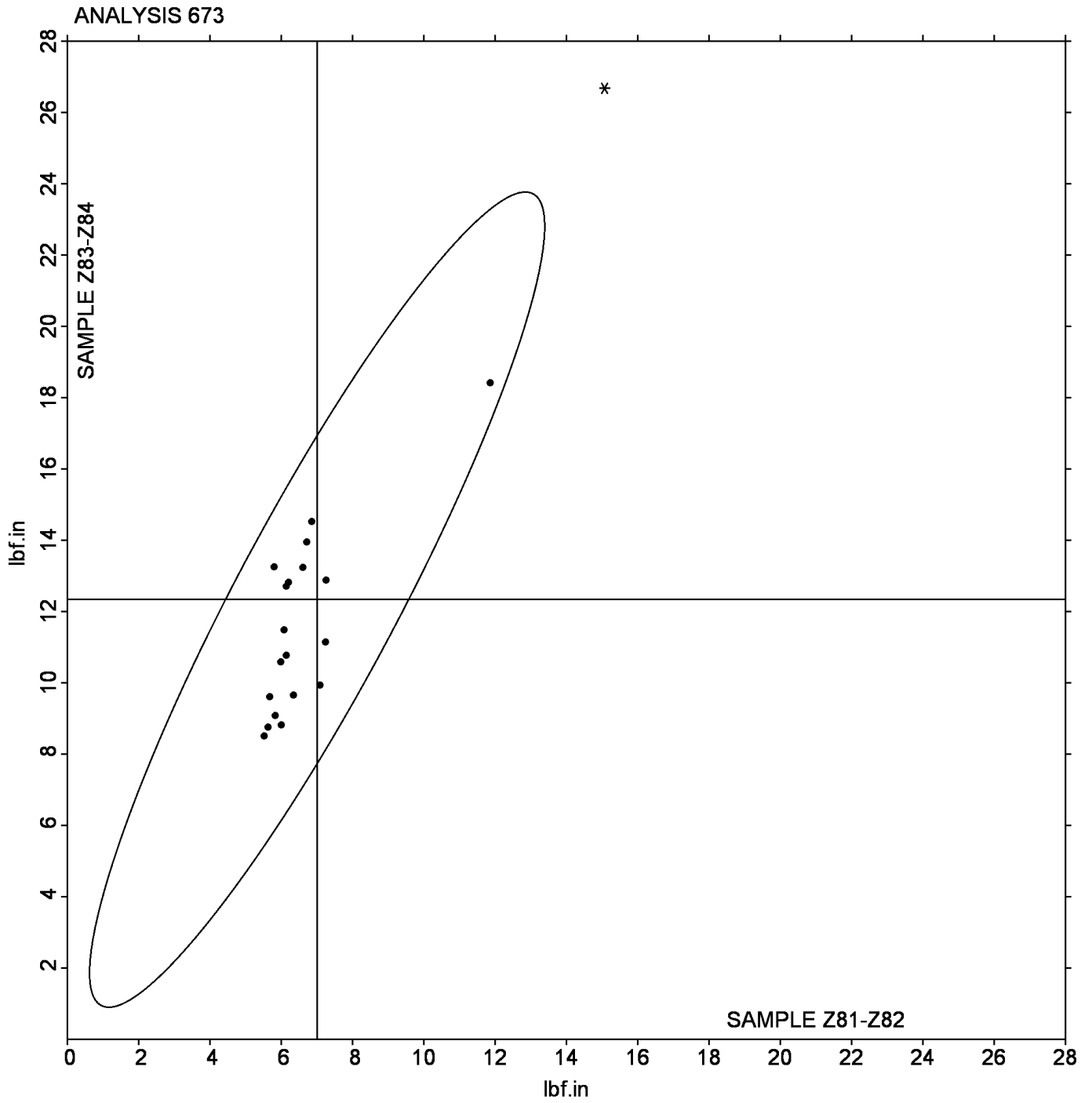
Samples Z81-Z82: EPDM compound #1 & Z83-Z84: EPDM compound #2

Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample Z81-Z82 = 7.0056 lbf.in

Grand Mean Sample Z83-Z84 = 12.334 lbf.in



Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample Z81-Z82			Sample Z83-Z84			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
15EQLW		37.06	-0.59	-0.26	32.13	-0.46	-0.32	ZZ
1PTMHT		36.20	-1.45	-0.65	32.61	0.01	0.01	ZZ
4C5U7M		40.36	2.71	1.22	33.94	1.35	0.92	ZZ
8ZK5HM		31.90	-5.75	-2.58	30.71	-1.89	-1.29	ZZ
95NMCT		36.59	-1.05	-0.47	32.52	-0.07	-0.05	ZZ
BMME86		38.57	0.93	0.42	34.84	2.25	1.54	ZZ
CV8R44		39.33	1.68	0.75	35.29	2.69	1.84	ZZ
FBVF7W		37.60	-0.05	-0.02	32.11	-0.49	-0.34	ZZ
GH8JAH		40.40	2.75	1.23	32.06	-0.54	-0.37	ZZ
HP7MPV		38.53	0.88	0.39	32.77	0.18	0.12	ZZ
JGGH45	X	70.71	33.06	14.82	63.77	31.17	21.33	ZZ
KXADA		35.76	-1.89	-0.85	30.52	-2.08	-1.42	ZZ
ML7DN6		37.12	-0.52	-0.24	33.46	0.86	0.59	ZZ
MWM7U		39.19	1.55	0.69	32.01	-0.58	-0.40	ZZ
NVQUN1		39.92	2.27	1.02	34.23	1.64	1.12	ZZ
R2YPC8		38.92	1.27	0.57	33.84	1.25	0.85	ZZ
TYDVW5	X	79.33	41.68	18.69	69.02	36.42	24.92	ZZ
WNH8TP		38.05	0.40	0.18	31.87	-0.73	-0.50	ZZ
Y99ZAX		33.79	-3.86	-1.73	29.90	-2.69	-1.84	ZZ
ZPU7GG		38.38	0.73	0.33	31.92	-0.68	-0.46	ZZ

Summary Statistics	
Grand Means	37.648 lbf.in 32.596 lbf.in
Std Dev Btwn Labs	2.230 lbf.in 1.461 lbf.in
Statistics based on 18 of 20 reporting participants	

Summary Statistics in SI Units	
Grand Means	42.536 dN.m 36.829 dN.m
Std Dev Btwn Labs	2.520 dN.m 1.651 dN.m
Statistics based on 18 of 20 reporting participants	

Samples Z81-Z82: EPDM compound #1 & Z83-Z84: EPDM compound #2

Analysis 674

ODR Vulcanization: Maximum Torque (Ibf.in)

Comments on assigned Data Flags for Test #674

JGGH45 (X) - Data for all Samples are high.

TYDVW5 (X) - Data for all Samples are high.

Rubber Interlaboratory Testing Program

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

WebCode	Data Flag	Sample Z85-Z86			Sample Z87-Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
279GYG		1.365	0.007	0.19	1.373	0.007	0.21	XX
28YBB4		1.353	-0.004	-0.11	1.320	-0.046	-1.30	MC
2AGAUL		1.378	0.021	0.54	1.387	0.021	0.59	MC
4KF7W5		1.375	0.017	0.45	1.393	0.027	0.78	MC
4WHKR		1.357	-0.001	-0.02	1.333	-0.033	-0.93	MD
7LYL7T		1.312	-0.046	-1.19	1.362	-0.004	-0.12	MD
8G6BV5		1.392	0.034	0.88	1.412	0.046	1.30	MC
95PEBN		1.340	-0.018	-0.45	1.343	-0.023	-0.64	XX
9B28PR		1.325	-0.033	-0.84	1.335	-0.031	-0.88	TP
9VTZ4Q		1.330	-0.028	-0.71	1.350	-0.016	-0.45	MP
BCFHK3		1.375	0.017	0.45	1.392	0.026	0.73	MC
BDJG5H		1.342	-0.016	-0.41	1.347	-0.019	-0.55	MC
C2BXGM		1.383	0.026	0.67	1.407	0.041	1.16	MC
CBBNN2		1.405	0.047	1.23	1.398	0.032	0.92	MC
G7LNZW		1.278	-0.079	-2.05	1.308	-0.058	-1.64	MD
HZ3JM3		1.317	-0.041	-1.06	1.336	-0.030	-0.85	MC
L9FTKR		1.355	-0.003	-0.07	1.375	0.009	0.26	MC
N9U1ZX	X	1.200	-0.158	-4.08	1.215	-0.151	-4.29	TP
P2A5HG		1.267	-0.091	-2.35	1.308	-0.058	-1.64	TP
PVLKE1		1.415	0.057	1.49	1.397	0.031	0.87	MC
Q2J93D		1.325	-0.033	-0.84	1.295	-0.071	-2.01	MC
QBYL9W		1.403	0.046	1.18	1.388	0.022	0.64	MC
QYTCST	X	1.435	0.077	2.00	1.543	0.177	5.04	MC
UL76E8	*	1.348	-0.009	-0.24	1.432	0.066	1.87	MC
UWM1T		1.393	0.036	0.93	1.410	0.044	1.25	MC
V1JGQT		1.328	-0.030	-0.77	1.328	-0.038	-1.08	MC
V8ALE3		1.380	0.022	0.58	1.387	0.021	0.59	TP
WRGH5C		1.402	0.044	1.14	1.385	0.019	0.54	MC
WU2VUF		1.342	-0.016	-0.41	1.365	-0.001	-0.03	MC
YN8HR5		1.360	0.002	0.06	1.372	0.006	0.16	MC
ZGXCGX		1.425	0.067	1.74	1.373	0.007	0.21	MC

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

		Summary Statistics	
Grand Means	1.3576 minutes	1.3659 minutes	
Std Dev Btwn Labs	0.0387 minutes	0.0352 minutes	
Statistics based on 29 of 31 reporting participants			

Samples Z85-Z86: EPDM compound, batch #1 & Z87-Z88: EPDM compound, batch #2

Comments on assigned Data Flags for Test #684

N9U1ZX (X) - Data for all Samples are low.

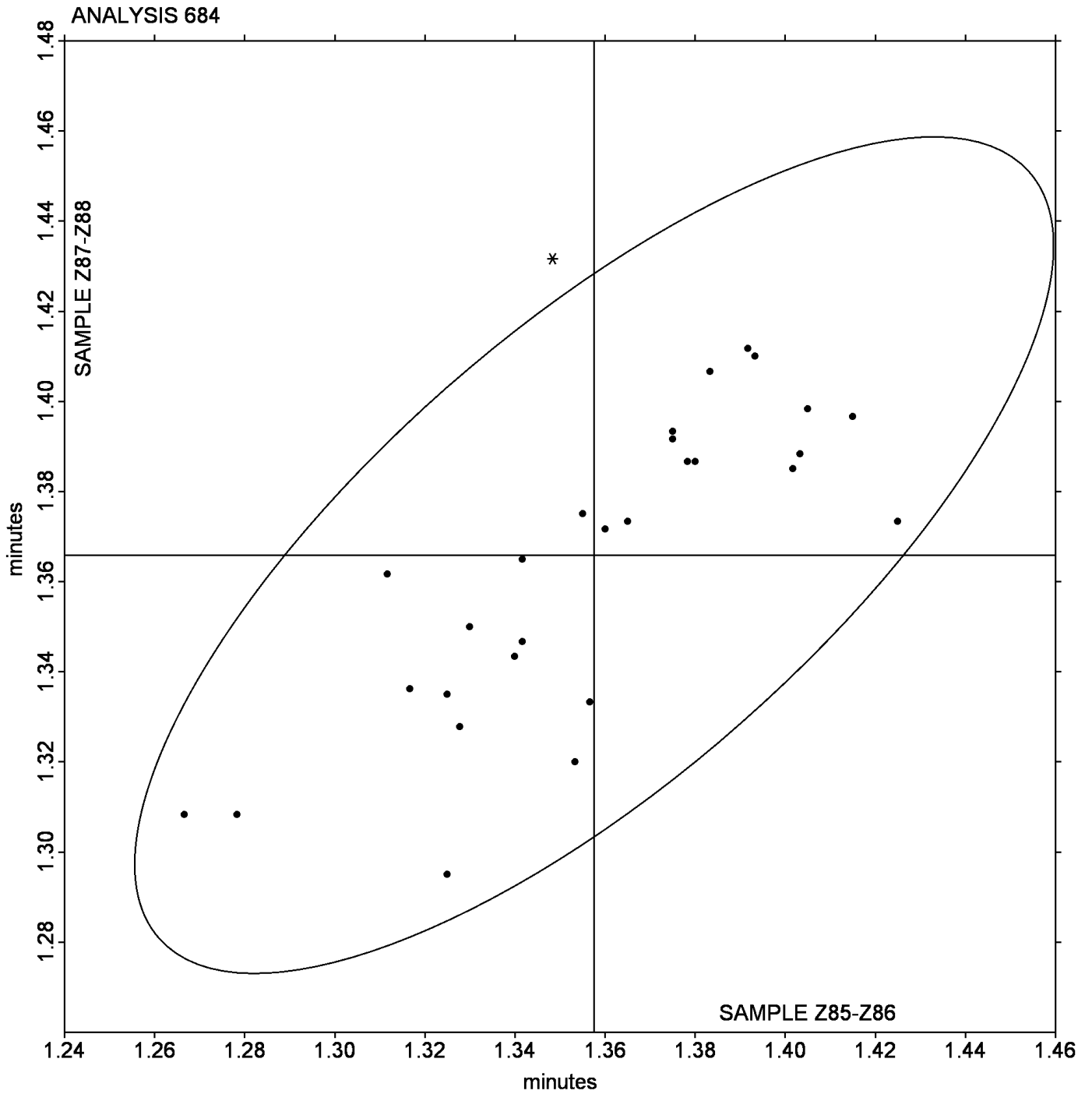
QYTCST (X) - Data for Sample set Z87-Z88 are high.

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample Z85-Z86 = 1.3576 minutes

Grand Mean Sample Z87-Z88 = 1.3659 minutes



Rubber Interlaboratory Testing Program

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample Z85-Z86			Sample Z87-Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1AAR55		1.232	-0.055	-0.51	1.210	-0.080	-0.75	MC
4H76C2		1.485	0.198	1.83	1.503	0.214	2.01	TP
4KACBT		1.367	0.080	0.74	1.358	0.069	0.65	TP
6PHDGV	*	1.075	-0.212	-1.95	1.128	-0.162	-1.52	MC
7UW976		1.263	-0.023	-0.21	1.277	-0.013	-0.12	MD
7WJWS6		1.337	0.050	0.46	1.335	0.045	0.43	MC
B72F9X		1.320	0.033	0.31	1.335	0.045	0.43	MC
B877TM		1.177	-0.110	-1.02	1.167	-0.123	-1.16	MP
BWKXB		1.177	-0.110	-1.02	1.207	-0.083	-0.78	TP
C6YATQ		1.370	0.083	0.77	1.360	0.070	0.66	MC
CW8EKE		1.303	0.017	0.15	1.298	0.009	0.08	MC
DHEUFB		1.163	-0.123	-1.14	1.168	-0.121	-1.14	MC
EVBZR2		1.338	0.052	0.48	1.327	0.037	0.35	XX
EYVDBH		1.388	0.102	0.94	1.382	0.092	0.87	MC
K1M59V		1.227	-0.060	-0.55	1.240	-0.050	-0.47	MC
LGB29Y		1.353	0.067	0.62	1.328	0.039	0.36	MC
LMEEHG		1.295	0.008	0.08	1.280	-0.010	-0.09	MC
MAD8W4		1.245	-0.042	-0.38	1.227	-0.063	-0.59	MC
MQQ8RY		1.428	0.142	1.31	1.422	0.132	1.24	MC
MZ5RYR		1.293	0.007	0.06	1.282	-0.008	-0.08	MC
N799JV	X	1.513	0.227	2.09	1.618	0.329	3.09	MC
NGB4KU		1.214	-0.072	-0.67	1.241	-0.049	-0.46	MC
PNGVAP		1.348	0.062	0.57	1.355	0.065	0.61	MC
Q9RB7R		1.137	-0.150	-1.38	1.127	-0.163	-1.53	MC
RH9YB7		1.357	0.070	0.65	1.343	0.054	0.50	MC
RJKWCG		1.373	0.087	0.80	1.390	0.100	0.94	MC
SAAJAT		1.281	-0.006	-0.06	1.319	0.030	0.28	MC
UEW8N2		1.425	0.138	1.28	1.410	0.120	1.13	XX
UJR7W5		1.393	0.107	0.99	1.392	0.102	0.96	MD
VC66FT		1.282	-0.005	-0.05	1.283	-0.006	-0.06	MC
WEDTP4		1.383	0.097	0.89	1.425	0.135	1.27	MC
XMURW		1.193	-0.093	-0.86	1.210	-0.080	-0.75	XX
XYLD44	X	1.425	0.138	1.28	1.508	0.219	2.06	MC
YDXPEQ		1.272	-0.014	-0.13	1.264	-0.026	-0.24	MC
YLXQNR	*	0.960	-0.327	-3.02	0.957	-0.333	-3.13	MD

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample Z85-Z86			Sample Z87-Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Z8E3JC		1.288	0.002	0.02	1.302	0.012	0.11	MC

Summary Statistics			
Grand Means	1.2866	minutes	1.2897
Std Dev Btwn Labs	0.1083	minutes	0.1063
Statistics based on 34 of 36 reporting participants			

Samples Z85-Z86: EPDM compound, batch #1 & Z87-Z88: EPDM compound, batch #2

Comments on assigned Data Flags for Test #685

N799JV (X) - Inconsistency in testing between Sample sets. High Data for Sample set Z87-88 and also inconsistent in testing within both sample sets.

XYLD44 (X) - Inconsistency in testing between Sample sets and within for Sample Z88.

Instrument Code Listing

685 MDR Vulcanization-Scorch Time, Ts1 (minutes)

Instruments:

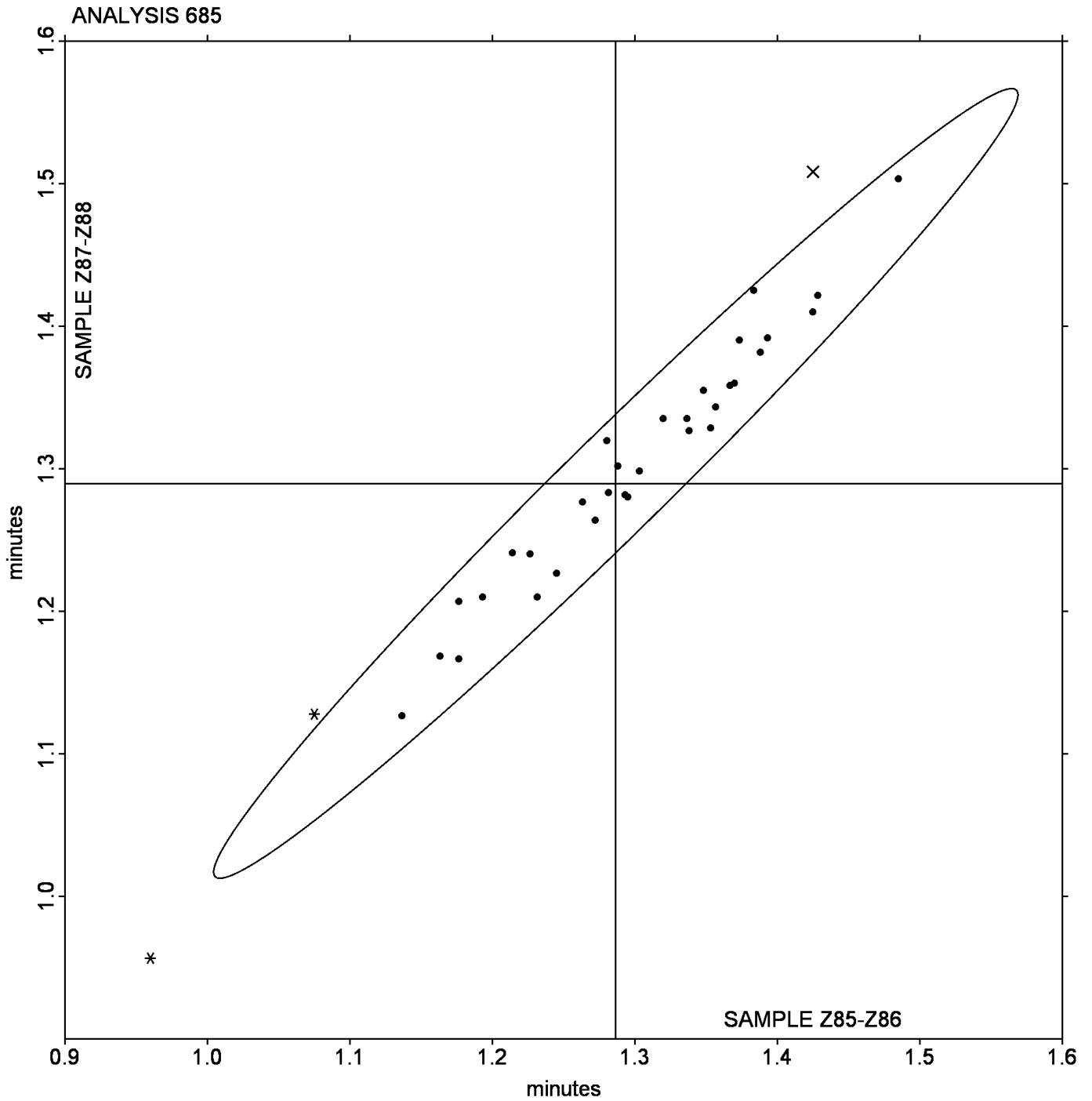
- (MC) Alpha Technologies [Monsanto] MDR 2000 or 2000E
- (MD) Alpha Tech. Rubber Process Analyzer (RPA 2000)
- (MP) Alpha Technologies [Monsanto] MDR 2000P
- (TP) Tech Pro MDR model MDPT
- (XX) Instrument model not specified by lab

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample Z85-Z86 = 1.2866 minutes

Grand Mean Sample Z87-Z88 = 1.2897 minutes



Rubber Interlaboratory Testing Program

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

WebCode	Data Flag	Sample Z85-Z86			Sample Z87-Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
2QXYJW		4.480	0.208	1.02	4.455	0.338	1.53	MC
2W8YE1		4.430	0.158	0.78	4.135	0.018	0.08	MC
51928B		4.070	-0.202	-1.00	3.838	-0.279	-1.26	MC
57TJS8		4.257	-0.016	-0.08	4.203	0.086	0.39	MC
5FXVRV		4.197	-0.076	-0.37	4.038	-0.079	-0.36	MC
6V66G2		4.068	-0.204	-1.01	3.953	-0.164	-0.74	MC
6V861F		4.264	-0.008	-0.04	4.195	0.077	0.35	MC
6XE4AY		3.965	-0.307	-1.52	4.003	-0.114	-0.52	TP
825Z8N		4.197	-0.076	-0.37	3.757	-0.361	-1.63	XX
8QRK64		4.185	-0.087	-0.43	4.200	0.083	0.37	MC
A5PBBG		4.200	-0.072	-0.36	4.080	-0.037	-0.17	MC
ABCCVN		4.252	-0.021	-0.10	4.210	0.093	0.42	MP
AXWC5P		4.413	0.141	0.70	4.340	0.223	1.01	TP
AYQQM2		4.502	0.229	1.13	4.213	0.096	0.43	MC
BAGJU3		4.523	0.251	1.24	4.417	0.299	1.36	MC
DRCGHP		3.993	-0.279	-1.38	3.902	-0.216	-0.98	MC
FUZ18J		3.932	-0.341	-1.68	3.990	-0.127	-0.58	MD
GJLPRY		4.142	-0.131	-0.64	3.982	-0.136	-0.61	MC
JBR51G		4.531	0.258	1.27	4.470	0.352	1.60	MC
P6HJ2N		4.447	0.174	0.86	4.218	0.101	0.46	MC
PVP5FV	*	4.118	-0.154	-0.76	3.658	-0.459	-2.08	TP
Q168QS		4.170	-0.102	-0.50	3.948	-0.169	-0.77	XX
QJRF3U		4.131	-0.142	-0.70	3.995	-0.123	-0.56	MC
QRPQDJ		4.360	0.088	0.43	4.270	0.153	0.69	MC
TXZLLJ		4.192	-0.081	-0.40	4.230	0.113	0.51	MD
U8FFL4	*	4.822	0.549	2.71	4.627	0.509	2.31	TP
UHG8LG		4.158	-0.114	-0.56	3.880	-0.237	-1.08	MC
UNUQF5		4.410	0.138	0.68	4.112	-0.006	-0.03	MC
UTHFRU		4.455	0.183	0.90	4.242	0.124	0.56	MC
UUBS6P		4.210	-0.062	-0.31	3.882	-0.236	-1.07	MC
XP3EM7		4.390	0.118	0.58	4.215	0.098	0.44	MC
YGWMU	X	2.416	-1.856	-9.15	2.405	-1.713	-7.76	MC
YK9MFP		4.457	0.184	0.91	4.330	0.213	0.96	MC
Z6AXCP		3.910	-0.362	-1.79	3.793	-0.324	-1.47	MD
ZEN9KL		4.430	0.158	0.78	4.212	0.094	0.43	MC

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

		Summary Statistics	
Grand Means	4.2723 minutes		4.1174 minutes
Std Dev Btwn Labs	0.2028 minutes		0.2207 minutes
Statistics based on 34 of 35 reporting participants			

Samples Z85-Z86: EPDM compound, batch #1 & Z87-Z88: EPDM compound, batch #2

Comments on assigned Data Flags for Test #686

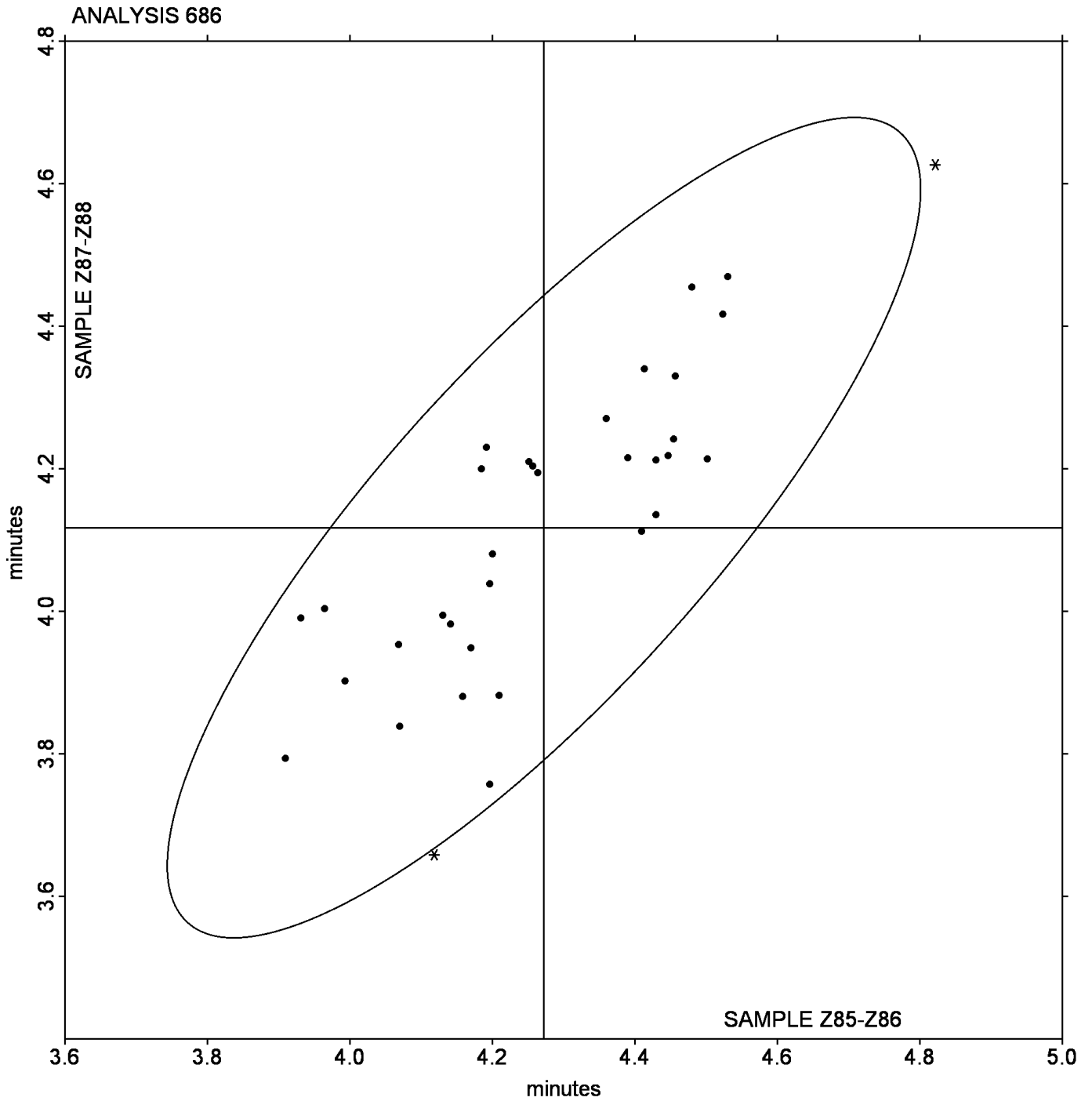
YGWMUH (X) - Data for all Samples are low.

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample Z85-Z86 = 4.2723 minutes

Grand Mean Sample Z87-Z88 = 4.1174 minutes



Rubber Interlaboratory Testing Program

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample Z85-Z86			Sample Z87-Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1Q66BQ		8.288	0.202	0.81	8.088	0.303	1.24	MC
2BBL7M		7.568	-0.518	-2.07	7.290	-0.496	-2.03	MC
48NWYT		8.460	0.373	1.49	7.912	0.126	0.52	MC
7BN1MR		7.825	-0.262	-1.05	7.708	-0.077	-0.32	TP
7UWCR8		8.121	0.034	0.14	7.803	0.017	0.07	MC
8P96B5		8.395	0.308	1.23	8.098	0.313	1.28	MC
8WB8TZ		8.300	0.213	0.85	7.670	-0.116	-0.47	MC
9JAN9E		7.978	-0.108	-0.43	7.948	0.163	0.67	MD
9MNPVK	X	7.898	-0.188	-0.75	6.935	-0.851	-3.49	XX
ADZFFU		8.413	0.327	1.31	8.250	0.464	1.91	MC
B2WJQX		8.158	0.072	0.29	7.853	0.068	0.28	MC
BBP3Y4		8.028	-0.058	-0.23	7.768	-0.017	-0.07	MC
BHF1AZ		7.933	-0.153	-0.61	7.667	-0.119	-0.49	MC
DDJ6NX		7.990	-0.097	-0.39	7.695	-0.091	-0.37	MD
F8L4ZP		7.720	-0.367	-1.47	7.362	-0.424	-1.74	TP
GLMB5H		8.172	0.085	0.34	7.795	0.009	0.04	MC
HX7R4J		8.230	0.143	0.57	8.100	0.314	1.29	MC
KV7UM1		8.292	0.205	0.82	8.005	0.219	0.90	MC
L2J332		8.397	0.310	1.24	7.882	0.096	0.39	MC
L466RW		7.902	-0.185	-0.74	7.658	-0.127	-0.52	MC
LAFSXY		7.603	-0.483	-1.93	7.378	-0.407	-1.67	TP
LY98VR		8.075	-0.012	-0.05	7.778	-0.007	-0.03	MC
M6ZL8Q		8.255	0.168	0.67	8.060	0.274	1.13	MC
MPRQHB		8.172	0.085	0.34	7.960	0.174	0.72	MD
RAQRJF		7.815	-0.272	-1.09	7.607	-0.179	-0.73	MC
RM8436		7.988	-0.098	-0.39	7.695	-0.091	-0.37	TP
RP7GFK		8.477	0.390	1.56	7.983	0.198	0.81	MC
SNRWY7		7.889	-0.198	-0.79	7.570	-0.216	-0.89	MC
U9DQQ7		8.132	0.045	0.18	7.857	0.071	0.29	MC
UZ1EV3	*	7.695	-0.392	-1.57	7.177	-0.609	-2.50	MP
VVUAP8		7.713	-0.373	-1.49	7.528	-0.257	-1.06	MC
WH7E5E		8.118	0.032	0.13	7.880	0.094	0.39	MC
XAE9AP		8.308	0.222	0.89	7.895	0.109	0.45	MC
XJHQCJ		8.207	0.120	0.48	7.788	0.003	0.01	XX
Y3YXVH		8.350	0.263	1.05	8.042	0.256	1.05	MC

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

WebCode	Data Flag	Sample Z85-Z86			Sample Z87-Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
YXKX7K		8.070	-0.017	-0.07	7.750	-0.036	-0.15	MC

Summary Statistics

Grand Means

8.0868 minutes

7.7857 minutes

Std Dev Btwn Labs

0.2501 minutes

0.2437 minutes

Statistics based on 35 of 36 reporting participants

Samples Z85-Z86: EPDM compound, batch #1 & Z87-Z88: EPDM compound, batch #2

Comments on assigned Data Flags for Test #687

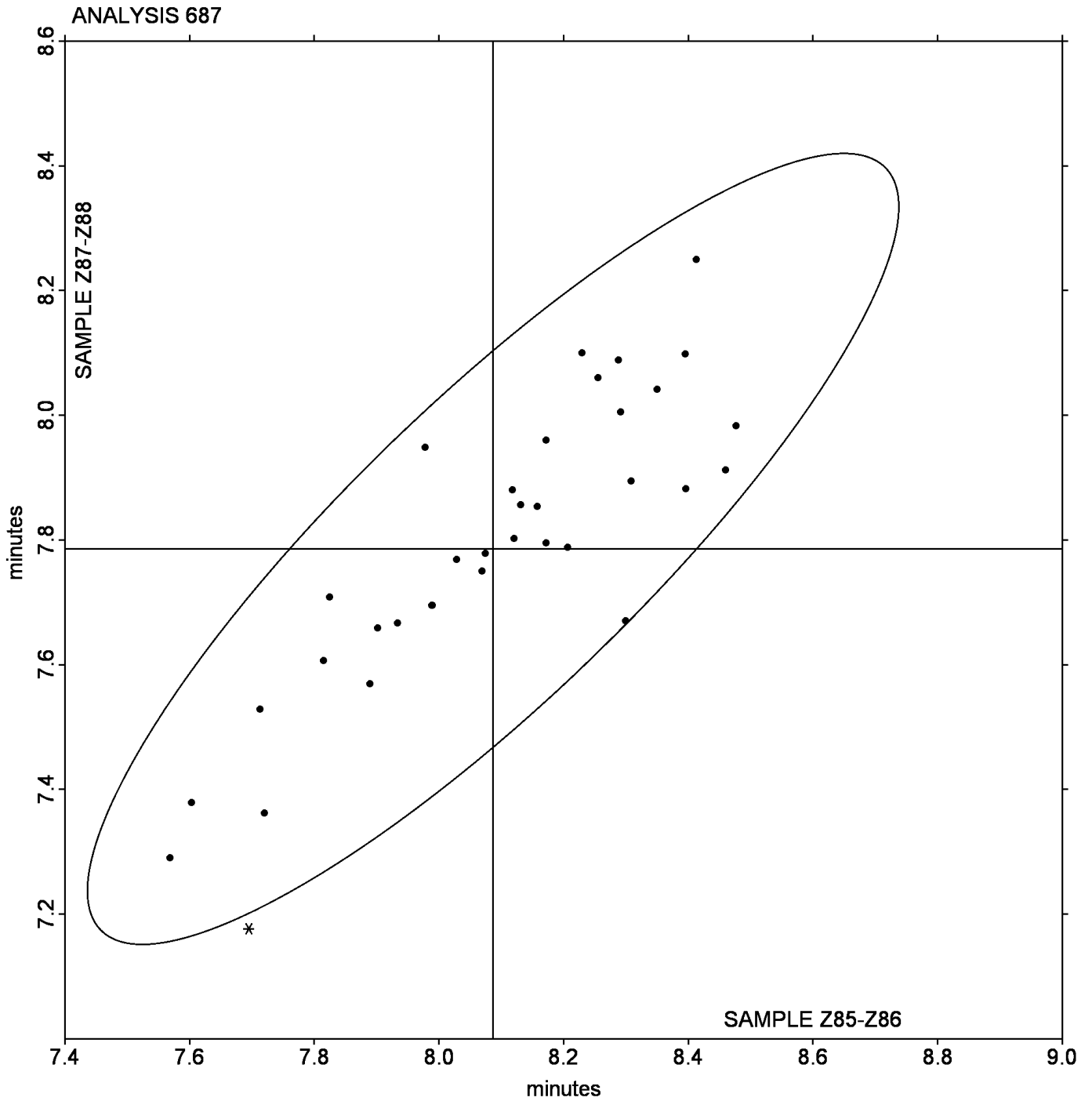
9MNPVK (X) - Inconsistency in testing between Sample sets. Low data for Sample Z87.

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample Z85-Z86 = 8.0868 minutes

Grand Mean Sample Z87-Z88 = 7.7857 minutes



Rubber Interlaboratory Testing Program

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

WebCode	Data Flag	Sample Z85-Z86			Sample Z87-Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
1T51TM	X	5.535	2.968	11.41	6.105	3.309	12.08	MD
2G4TQV		2.375	-0.193	-0.74	2.605	-0.191	-0.70	MC
3WV5G	*	2.858	0.291	1.12	3.307	0.511	1.86	MC
6XUD7Q	X	0.259	-2.309	-8.88	0.249	-2.546	-9.29	TP
72JEH3		2.527	-0.041	-0.16	2.800	0.004	0.02	MC
8PZ4PL		2.427	-0.141	-0.54	2.598	-0.197	-0.72	XX
9UN3UD		2.518	-0.049	-0.19	2.801	0.005	0.02	MC
BVDSFT		2.148	-0.419	-1.61	2.330	-0.466	-1.70	TP
BVNFHY		2.495	-0.073	-0.28	2.670	-0.126	-0.46	MC
CYSY6C		2.563	-0.004	-0.02	2.717	-0.079	-0.29	MC
E4842X		2.323	-0.245	-0.94	2.563	-0.233	-0.85	MD
FEBTCK		2.892	0.324	1.25	3.260	0.464	1.69	MC
G56BYT		2.658	0.091	0.35	2.900	0.104	0.38	MC
HHYT8Z		2.552	-0.016	-0.06	2.812	0.016	0.06	MC
JJ2VLG		2.629	0.061	0.24	2.866	0.070	0.26	MC
K1L2GD		2.728	0.161	0.62	2.920	0.124	0.45	TP
KXL9HE		2.395	-0.173	-0.66	2.675	-0.121	-0.44	MC
LBYLBU		2.430	-0.138	-0.53	2.640	-0.156	-0.57	XX
M1D1N4		2.383	-0.184	-0.71	2.605	-0.191	-0.70	MC
M8L2BW		2.295	-0.273	-1.05	2.530	-0.266	-0.97	MC
MT81H2		2.449	-0.119	-0.46	2.704	-0.092	-0.34	MC
N1VGFP		2.462	-0.106	-0.41	2.723	-0.073	-0.27	MC
PP5B9J		2.517	-0.051	-0.20	2.773	-0.022	-0.08	MC
R19TUS		2.278	-0.289	-1.11	2.567	-0.229	-0.84	MC
RMAD3N		2.418	-0.150	-0.58	2.483	-0.313	-1.14	MC
SB9N1N		2.776	0.209	0.80	3.092	0.296	1.08	MC
TE2855		2.642	0.074	0.29	2.872	0.076	0.28	MD
UP4Y8C		3.187	0.619	2.38	3.372	0.576	2.10	MC
VA9YTG		2.730	0.162	0.62	2.913	0.118	0.43	MC
VG6LXG		2.298	-0.269	-1.03	2.565	-0.231	-0.84	MC
VUJZH9		2.391	-0.176	-0.68	2.545	-0.251	-0.92	MC
WKVYT6		2.815	0.247	0.95	2.999	0.203	0.74	MC
XBLVCZ		2.307	-0.260	-1.00	2.508	-0.288	-1.05	MP
YZDTSL	*	3.038	0.471	1.81	3.077	0.281	1.03	TP
ZPC5JG		3.225	0.657	2.53	3.472	0.676	2.47	MC

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Summary Statistics

Grand Means

2.5675 lbf.in

2.7958 lbf.in

Std Dev Btwn Labs

0.2602 lbf.in

0.2740 lbf.in

Statistics based on 33 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

2.9009 dN.m

3.1588 dN.m

Std Dev Btwn Labs

0.2939 dN.m

0.3096 dN.m

Statistics based on 33 of 35 reporting participants

Samples Z85-Z86: EPDM compound, batch #1 & Z87-Z88: EPDM compound, batch #2

Comments on assigned Data Flags for Test #688

1T51TM (X) - Data for all Samples are high.

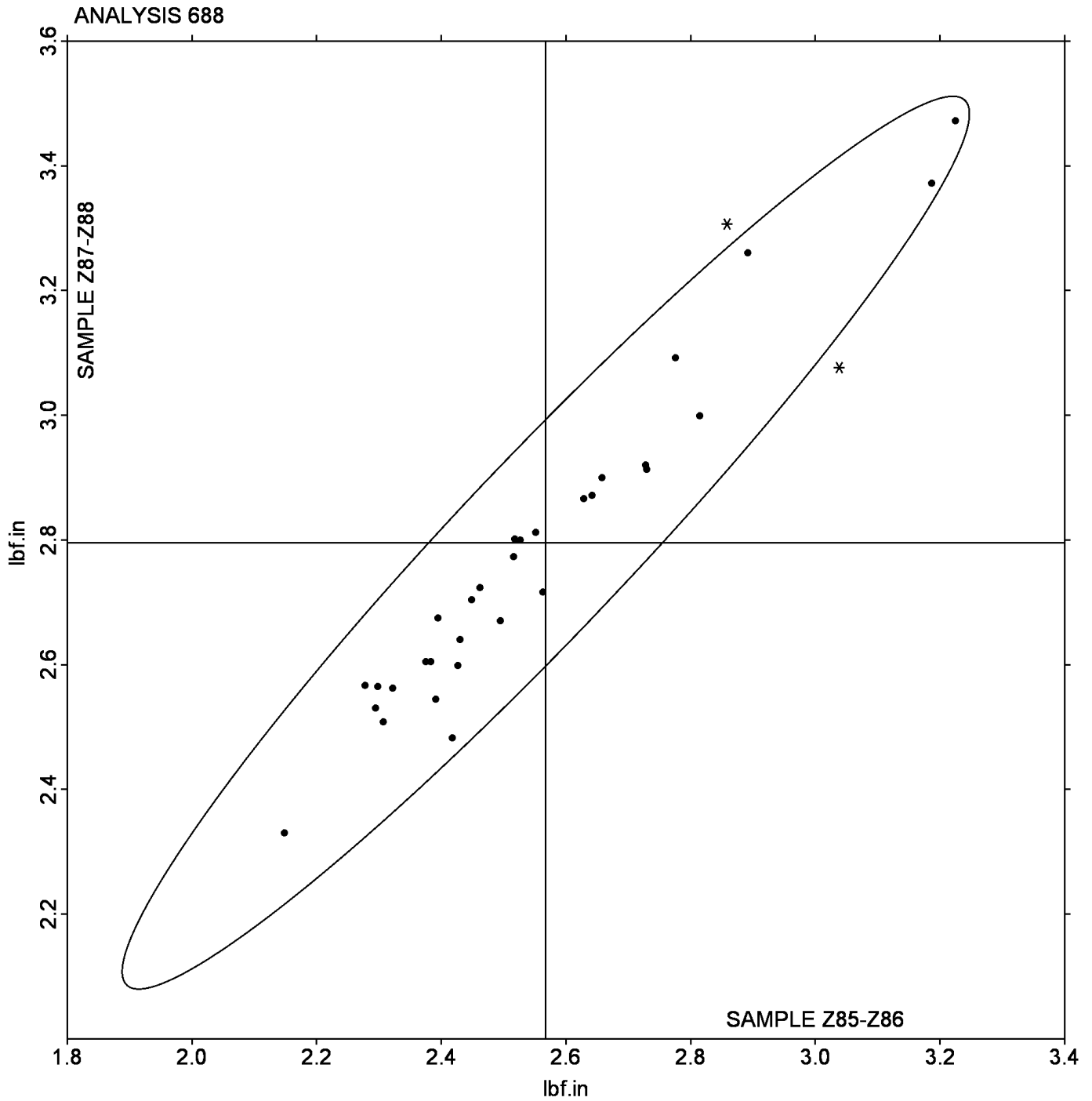
6XUD7Q (X) - Extreme data for both Sample sets. Data appear to be off by a factor of 10.

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample Z85-Z86 = 2.5675 lbf.in

Grand Mean Sample Z87-Z88 = 2.7958 lbf.in



Rubber Interlaboratory Testing Program

Analysis 689

MDR Vulcanization: Maximum Torque (Ibf.in)

WebCode	Data Flag	Sample Z85-Z86			Sample Z87-Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
19T74M		12.85	-0.05	-0.08	13.33	0.07	0.11	MC
1FUMF3	X	9.85	-3.05	-4.43	10.28	-2.99	-4.52	TP
1H8X2Z		12.46	-0.44	-0.65	12.66	-0.60	-0.91	MC
1PELND		12.76	-0.14	-0.20	13.20	-0.06	-0.09	XX
21UB3F		12.65	-0.25	-0.36	12.82	-0.44	-0.66	MC
3F3HVR		11.59	-1.32	-1.91	11.96	-1.30	-1.97	XX
44YXM5		13.13	0.23	0.33	13.65	0.39	0.59	MC
5H3S28		14.13	1.23	1.78	14.16	0.90	1.36	TP
74XLGR		12.96	0.06	0.09	13.11	-0.15	-0.23	MC
8GE1H4		13.26	0.36	0.52	13.44	0.18	0.27	MC
91CVG7		12.41	-0.49	-0.71	12.65	-0.61	-0.93	MC
96UMW		12.92	0.02	0.03	13.46	0.20	0.31	MP
B3UY53	*	14.76	1.86	2.70	15.13	1.86	2.82	MC
E1Q3UG		12.69	-0.22	-0.31	13.32	0.06	0.09	MC
GBCWZ		13.46	0.56	0.81	13.66	0.40	0.60	MC
JEXDUZ		13.15	0.25	0.36	13.14	-0.12	-0.19	TP
JFZEC6		12.80	-0.10	-0.15	13.16	-0.10	-0.16	MC
L65K1E		11.56	-1.34	-1.94	11.99	-1.27	-1.93	MC
LWD7J2		13.06	0.16	0.24	13.46	0.20	0.31	MC
NH9VSE		13.23	0.33	0.48	13.55	0.29	0.44	MC
NMKLPN		12.51	-0.39	-0.57	12.96	-0.30	-0.46	MD
P66QML		13.28	0.38	0.55	14.02	0.76	1.15	MC
QTF6LF		13.72	0.82	1.19	14.06	0.79	1.20	MC
R5KVZF		13.60	0.70	1.01	13.83	0.57	0.87	MC
RDDY95		13.92	1.02	1.48	14.07	0.81	1.23	TP
SEQY1X		13.19	0.29	0.42	13.47	0.20	0.31	MC
SGDNY6		11.74	-1.17	-1.69	12.47	-0.80	-1.21	MD
TQMHQ		12.77	-0.13	-0.19	13.25	-0.01	-0.02	MC
V7WU2M		12.46	-0.45	-0.65	13.22	-0.05	-0.07	MC
VQWJYN		11.98	-0.92	-1.34	12.17	-1.09	-1.65	MC
VV8U75		12.07	-0.83	-1.20	12.47	-0.79	-1.20	MC
WHHDSJ		12.90	0.00	0.00	13.52	0.26	0.39	MC
X15269		13.11	0.21	0.30	13.48	0.21	0.32	MC
X52JMC		13.05	0.15	0.21	13.41	0.15	0.23	MC
X7XPAP	X	20.07	7.17	10.42	20.91	7.65	11.59	MD

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

WebCode	Data Flag	Sample Z85-Z86			Sample Z87-Z88			Instr Code
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV	
Y7X775		12.53	-0.37	-0.53	12.64	-0.62	-0.94	MC

Summary Statistics			
Grand Means	12.901 lbf.in	13.261 lbf.in	
Std Dev Btwn Labs	0.688 lbf.in	0.660 lbf.in	
Statistics based on 34 of 36 reporting participants			

Summary Statistics in SI Units			
Grand Means	14.577 dN.m	14.983 dN.m	
Std Dev Btwn Labs	0.778 dN.m	0.746 dN.m	
Statistics based on 34 of 36 reporting participants			

Samples Z85-Z86: EPDM compound, batch #1 & Z87-Z88: EPDM compound, batch #2

Comments on assigned Data Flags for Test #689

1FUMF3 (X) - Data for all Samples are low. Possible Systematic Error.

X7XPAP (X) - Data for all Samples are high.

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample Z85-Z86 = 12.901 lbf.in

Grand Mean Sample Z87-Z88 = 13.261 lbf.in

