



Collaborative Testing Services, Inc. Containerboard Interlaboratory Testing Program

Participant Summary Report #484 (A)- January 2010

[Introduction to the Containerboard Program](#)

[Explanation of Tables and Definitions of Terms](#)

[Instrument Manufacturer Contacts](#)

Analysis	Sample Lot	Analysis Name
<u>201</u>	<u>BOX4</u>	<u>Box Compression Strength, Corrugated Boxes</u>
<u>202</u>	<u>ECT3</u>	<u>Edgewise Compressive Strength, Wax (T811), Corrugated board</u>
<u>203</u>	<u>ECT3</u>	<u>Edgewise Compressive Strength by Clamp (T839), Corrugated board</u>
<u>205</u>	<u>42X2</u>	<u>Mullen Burst of Linerboard, 42 lb Linerboard</u>
<u>206</u>	<u>69Y2</u>	<u>Mullen Burst of Linerboard, 69 lb Linerboard</u>
<u>215</u>	<u>42X2</u>	<u>Ring Crush of Linerboard, Rigid Platen Type, 42 lb Linerboard</u>
<u>216</u>	<u>69Y2</u>	<u>Ring Crush of Linerboard, Rigid Platen Type, 69 lb Linerboard</u>
<u>223</u>	<u>42X2</u>	<u>STFI of Linerboard, 42 lb Linerboard</u>
<u>224</u>	<u>69Y2</u>	<u>STFI of Linerboard, 69 lb Linerboard</u>
<u>228</u>	<u>42X</u>	<u>Roughness - Stylus Method, 42 lb Linerboard</u>
<u>231</u>	<u>42X</u>	<u>Internal Bond Strength, Linerboard, 42 lb Linerboard</u>
<u>234</u>	<u>42X</u>	<u>Coefficient of Static Friction - Inclined Plane, 42 lb Linerboard</u>
<u>237</u>	<u>42X</u>	<u>Air Resistance - Gurley Method, Linerboard, 42 lb linerboard</u>
<u>240</u>	<u>CM71</u>	<u>Flat Crush Strength (CMT) of Medium, 26 lb Corrugating Medium</u>
<u>250</u>	<u>CM71</u>	<u>Fluted Crush of Medium, 26 lb Corrugating Medium</u>
<u>255</u>	<u>CM71</u>	<u>Ring Crush of Medium, 26 lb Corrugating Medium</u>
<u>261</u>	<u>CM71</u>	<u>STFI of Medium, 26 lb Corrugating Medium</u>

ABOUT CTS

Founded in 1971, Collaborative Testing Services, Inc. (CTS) is a privately-owned company that specializes in interlaboratory tests for a wide variety of industries, including rubber, plastics, fasteners and metals, containerboard, paper, color, and wine, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 50 countries, currently participate in the CTS programs.

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Collaborative Testing Services, Inc.
CONTAINERBOARD INTERLABORATORY TESTING PROGRAM

INTRODUCTION

The Interlaboratory Testing Program for Containerboard is operated and maintained by Collaborative Testing Services, Inc. (CTS), with technical guidance provided by the Containerboard Group of the American Forest & Paper Association. The tests are conducted on a monthly basis.

For these tests samples of linerboard and corrugating medium, that each have been separately randomized from narrow rolls, are distributed for testing weekly. One weight of medium (26 lb.) is used for Concora Flat Crush Strength, Corrugated Fluted Crush Strength, Ring Crush Strength, and STFI Compression. Two weights of linerboard are tested each month for Mullen Burst, Ring Crush, and STFI Compression: 42 lb. - every month; 36 lb. and 69 lb. - alternate months. The participants return their test results for analysis and receive a monthly report.

Please refer to the section, "EXPLANATION OF TABLES", for definitions of terms and guidelines to interpreting the results.

USE OF AVERAGE MEAN AS A COLLABORATIVE REFERENCE VALUE

The samples of linerboard and corrugating medium, which have been randomized and placed in sealed packages for distribution in this program, may be used as collaborative reference materials. The values most representative of each material are the Cumulative Grand Means in the latest reports, given at the bottom right of each table. Comparisons can only be made within one lot of material; therefore check your measurements against the Cumulative Grand Means with the same lot code as on the packages being tested.

Material	Lot Code	Dates in Use
36# Linerboard	36U3	May 2008 -
42# Linerboard	42X1 42X2	March 2008 - May 2009 June 2009 -
69# Linerboard 69# Linerboard	69Y1 69Y2	July 2008 - March 2009 May 2009 -
Corrugating Medium	CM71 CM72	October 2009 - February 2010 March 2010 -

EXPLANATION OF TABLES

Each analysis is divided into three time spans. On the left side of the table are the individual laboratory results for each week of the month; in the center are each lab's statistical data for the month; and on the right are each lab's cumulative data for up to 16 weeks. At the bottom of the table are the consensus statistics for all the participants for each of the three time spans.

Definitions of Terms Used

Weekly Results

Laboratory Data

WebCode - A six character laboratory identifier used to maintain information on a confidential basis. The WebCode is unique for each analysis and will change for each report. Your WebCode can be found in your Individual Report (Current Month Performance Report) and your datasheet.

Weekly Means - The average of the test results obtained by the participant for each week that data were reported.

Consensus Data

Wk Mean - For each week, the average of the Means for all the participants, excluding those laboratories flagged with an 'X'.

Avg SDr - For each week, the average of the within-laboratory standard deviations (SDr's) for all the participants, excluding those laboratories flagged with an 'X'. The Avg SDr is an indication of the variation of measurements within an average laboratory.

SD btwn Labs - For each week, the standard deviation of the laboratory Means about the Wk Mean, excluding those laboratories flagged with an 'X'. The SD LABS is an indication of the precision of measurement between the laboratories.

Labs Incl - The number of laboratory Means included in the Wk Mean for that week.

Labs Excl - The number of laboratory Means reported but excluded from the Wk Mean for that week because of outlying results ('X' following Mean).

Labs not rcvd - The number of laboratories failing to report for that week.

Monthly Results

Laboratory Data

Mean - For each laboratory, the average of all the weekly Means reported for this month.

CPV - **Comparative Performance Value**, an indication of how well a laboratory's Mean agrees with the other participants. The CPV is a ratio indicating the number of standard deviations from the consensus mean (Monthly Mean). The closer a laboratory's CPV is to zero, the more consistent its results are with the other participants' data.

SDr - For each laboratory, the average of the weekly within-lab standard deviations (SDr's) for all reported Weekly Means this month.

SD Wks - The standard deviation among the laboratory's weekly Means, including those Means flagged with an 'X'. The SD Wks is an indication of that laboratory's ability to obtain constant results from week to week.

Consensus Data

Month Mean - The average of the Means for all the participants, excluding those laboratories flagged with an 'X,' reporting data for this month.

Avg SDr - For the current month, the average of the within-laboratory standard deviations (SDr's) for all the participants, excluding those laboratories flagged with an 'X'.

SD btwn Labs - For the current month, the standard deviation of the laboratory Means about the Month Mean, excluding those laboratories flagged with an 'X'.

SD Wks - For the current month, the average of the laboratory between week standard deviations (SD Wks') for all the participants.

Labs Incl - The number of laboratory Means included in the Month Mean.

continued on next page

Cumulative Results

Laboratory Data

- Mean - For each lab, the average of all the monthly Means reported for the weeks shown.
- CPV - **Comparative Performance Value**, an indication of how well a laboratory's cumulative mean agrees with the other participants. The CPV is a ratio indicating the number of standard deviations from the consensus mean (Monthly Mean).
- SDr - For each laboratory, the average of the weekly within-lab standard deviations (SDr's) for the weeks shown.
- SD Wks- The standard deviation among the laboratory's weekly Means for the weeks shown, including those Means flagged with an 'X'. The SD Wks is an indication of that laboratory's ability to obtain constant results from week to week.
- Wks - The number of weeks included in the cumulative period.

Consensus Data

- Grand Mean - The average of the Means for all the participants, excluding those laboratories flagged with an 'X,' reporting data for the number of weeks included in the cumulative period.
- Avg SDr - For the cumulative period, the average of the within-laboratory standard deviations (SDr's) for all the participants, excluding those laboratories flagged with an 'X'.
- SD btwn Labs - For the cumulative period, the standard deviation of the laboratory Means about the Month Mean, excluding those laboratories flagged with an 'X'.
- SD Wks - For the cumulative period, the average of the laboratory between week standard deviations for all the participants.
- Labs Incl - The number of laboratory Means included in the Grand Mean.

Any laboratory that receives a 'flag' following a mean or standard deviation should refer to the chart below for an explanation of the data flag symbol:

Flag

Explanation

- Data Flags " X " and " * "** indicate a laboratory's performance on an average value differed from the consensus.
- Data Flags " H " and " L "** indicate a laboratory's performance on a standard deviation differed from the consensus.

Flags assigned to Weekly Means, Monthly Mean and Cumulative Mean:

- X** Excluded from the weekly means, monthly means and/or the cumulative mean. Immediate review of data and/or testing procedure is required.
- *** Included in the weekly means, monthly means and/or the cumulative mean; however, lab should review testing procedure and monitor future results.

Flags assigned to Weekly Means:

- H** Indicates high within-laboratory standard deviation. The laboratory SDr for each week is not shown, but laboratory average SDr and consensus average SDr values are shown.
- L** Indicates low within-laboratory standard deviation. The laboratory SDr for each week is not shown, but laboratory monthly average SDr and consensus average SDr values are shown.

Flags assigned to Monthly SD Wks and Cumulative SD Wks:

- H** Indicates high variability between weekly means (high week-to-week variation).
- L** Indicates low variability between weekly means (low week-to-week variation).

INSTRUMENT MANUFACTURER CONTACTS

If your data results have been flagged with an "X" and you believe that the problem may be with your instrument (and not your testing procedures), then CTS urges you to contact the appropriate instrument manufacturer. Where possible, CTS has asked the manufacturer to supply a contact person who is familiar with the Containerboard Collaborative Reference Program, and who can thus work with you on evaluating your results to better determine the cause of the problem. Additional contact names will be added as they become available.

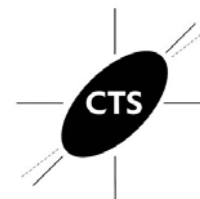
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Containerboard Interlaboratory Testing Program
Analysis 201

Top to Bottom Box Compression Strength, Corrugated Boxes - BOX4
TAPPI Official Test Method T804

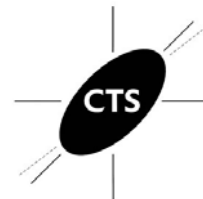


WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
8JR8NJ	843.0	0.67	80.6	843.0	0.67	80.6	1	TC
9LATUC	835.0	0.59	80.7	835.0	0.59	80.7	1	LH
AXDM8T	955.6	1.77	22.5	955.6	1.77	22.5	1	XX
BK79GU	790.5	0.16	69.3	790.5	0.16	69.3	1	LM
CBVB7W	703.0	-0.70	38.1	703.0	-0.70	38.1	1	ER
DWVNUL	983.9	2.04 *	28.5	983.9	2.04*	28.5	1	LN
E9BR4Q	694.5	-0.78	25.0	694.5	-0.78	25.0	1	TB
FYQ7TK	946.4	1.68	26.7	946.4	1.68	26.7	1	TL
J89ZDJ	650.9	-1.20	33.0	650.9	-1.20	33.0	1	LO
JAFFMB	792.9	0.18	66.1	792.9	0.18	66.1	1	XX
JEN3HU	644.0	-1.27	34.5	644.0	-1.27	34.5	1	EX
JJC6PY	730.6	-0.43	33.6	730.6	-0.43	33.6	1	ER
KQHUGU	698.2	-0.74	39.0	698.2	-0.74	39.0	1	ES
KZW6KN	697.2	-0.75	12.8	697.2	-0.75	12.8	1	LL
LN74PK	663.6	-1.08	22.8	663.6	-1.08	22.8	1	XX
MQCYUA	686.2	-0.86	42.7	686.2	-0.86	42.7	1	LL
MQY8FY	913.0	1.35	62.5	913.0	1.35	62.5	1	LH
MRUPGZ	752.4	-0.21	73.6	752.4	-0.21	73.6	1	MC
PBXAA7	719.0	-0.54	35.5	719.0	-0.54	35.5	1	RP
QDAQE3	753.8	-0.20	28.1	753.8	-0.20	28.1	1	LL
R23Q7G	704.8	-0.68	33.5	704.8	-0.68	33.5	1	LO
TDUR64	691.8	-0.81	45.9	691.8	-0.81	45.9	1	TP
TX26U6	907.8	1.30	65.1	907.8	1.30	65.1	1	TS
VVY9Y9	735.8	-0.38	12.0	735.8	-0.38	12.0	1	EX
YT8487	897.4	1.20	52.1	897.4	1.20	52.1	1	TR
ZLLRBG	744.0	-0.30	33.0	744.0	-0.30	33.0	1	LG

Consensus (All Labs) Results

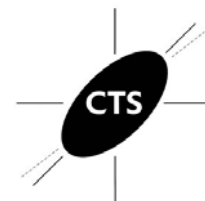
Month Mean	774.44	Grand Mean	774.44
Avg SDr	46.62	Avg SDr	46.62
SD btwn Labs	102.56	SD btwn Labs	102.56
Labs Incd	26	Labs Incd	26

Containerboard Interlaboratory Testing Program
Analysis 201
Top to Bottom Box Compression Strength, Corrugated Boxes - BOX4
TAPPI Official Test Method T804



Instrument Code List as Reported by the Labs

(ER) - Emerson 6200 Series	(ES) - Emerson 8510
(EX) - Emerson Apparatus (Model not specified)	(LG) - TLS / L.A.B. Validator Series
(LH) - L.A.B. Compression Tester Model #10610	(LL) - Lansmont 76-5K
(LM) - Lansmont 122-15k	(LN) - Lansmont 152-50k
(LO) - Lansmont 152-30k	(MC) - MTI Lab Model 10240
(RP) - Regmed P4000M	(TB) - TMI Monitor/Compression Tester, Model 17-70
(TC) - TMI Monitor/Compression Tester, Model 17-37	(TL) - TMI Compression Tester Model 49001
(TP) - Tinius Olsen Model 398	(TR) - Toyo Seiki Model RCT-5TU
(TS) - Tinius Olsen Model CTM	(XX) - Instrument make/model not specified by lab



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
DAN3ZB	44.4	1.25	3.6	42.9	0.97	3.9	4	TD
JX9A84	37.3	-1.65	0.7	38.3	-1.24	1.2	4	TC
MG3MFC	41.7	0.15	1.7	41.7	0.40	1.7	1	LZ
TKRNLE	42.0	0.26	1.5	41.3	0.23	1.4	4	LC
YZABUL	42.7	0.55	1.5	42.7	0.87	1.5	1	TD
ZZEF89	39.9	-0.57	2.5	38.3	-1.24	3.0	4	LC

Consensus (All Labs) Results					
Month Mean	41.32		Grand Mean	40.85	
Avg SDr	2.13		Avg SDr	2.34	
SD btwn Labs	2.44		SD btwn Labs	2.08	
Labs Incd	6		Labs Incd	6	

Instrument Code List as Reported by the Labs

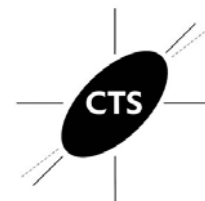
(LC) - L&W Crush Tester 48

(LZ) - L&W Crush Tester (model not specified)

(TC) - TMI Monitor/Compression Tester, Model 17-37

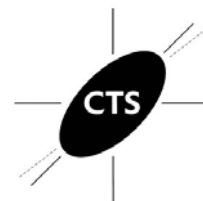
(TD) - TMI Digital Crush Tester, Model 17-09

Containerboard Interlaboratory Testing Program
Analysis 203
Edgewise Compressive Strength by T839, Corrugated board - ECT3
TAPPI T839



WebCode	Monthly Results			Cumulative Results				Inst
	Mean	CPV	SDr	Mean	CPV	SDr	Months	
39ZDYZ	41.9	-0.53	2.2	41.8	-0.28	1.7	4	LD
48T6TE	44.2	0.27	1.2	44.1	0.58	1.3	4	TL
4MQFEP	45.0	0.55	2.4	44.1	0.58	1.8	3	LC
4TQXGV	39.7	-1.29	3.1	37.7	-1.86	2.6	3	TK
6GKBNW	40.6	-0.97	1.9	40.9	-0.62	2.0	4	TC
74U2EV	42.7	-0.25	1.4	41.7	-0.32	2.0	4	EN
7H9ENG	42.6	-0.30	3.1	41.0	-0.59	2.5	2	LC
7J2GMD	41.8	-0.56	1.5	42.2	-0.15	1.4	4	LC
7KAWFC	42.1	-0.46	1.6	41.2	-0.50	1.4	4	EM
7KYGHW	47.4	1.37	1.9	44.9	0.90	1.6	4	TD
ADDDHC	40.6	-0.99	0.9	40.3	-0.87	1.1	4	TC
BE32GJ	42.7	-0.25	1.9	41.4	-0.42	2.3	4	LC
EGCG3U	43.8	0.13	1.8	42.8	0.10	2.8	4	LC
GD2TBN	43.8	0.12	2.1	42.6	0.02	1.8	4	TA
GZLZK3	49.8	2.21 *	2.7	46.2	1.39	3.5	4	EM
HCAL43	45.3	0.66	2.1	43.9	0.52	3.1	4	EM
J6KGE8	47.9	1.57	2.6	47.7	1.95	2.4	4	EX
KT2YRM	43.3	-0.03	2.6	43.9	0.53	2.2	4	LC
KVFTB2	42.7	-0.25	0.9	43.8	0.46	0.8	4	TC
LYF9FH	39.6	-1.32	1.3	39.5	-1.16	1.4	4	CT
MFEV78	43.2	-0.09	2.4	41.9	-0.25	1.9	4	EM
MYREZQ	36.5	-2.41 *	4.3	36.5	-2.32 *	4.3	1	LD
N9NXFH	42.2	-0.41	0.7	39.3	-1.22	1.0	4	XX
NM4G4L	48.4	1.73	3.0	46.5	1.51	2.7	4	TM
P8JC3J	42.6	-0.28	1.6	42.7	0.04	2.1	4	LC
RBCD24	42.7	-0.25	1.4	40.6	-0.75	2.0	4	TB
RG7TZG	49.9	2.27 *	2.7	48.5	2.27 *	1.9	4	EM
UDABMF	42.7	-0.23	1.7	43.2	0.25	1.4	4	TC
WAP3NR	43.2	-0.07	2.3	40.7	-0.71	2.8	4	LX
WQW9VG	45.0	0.53	1.6	41.3	-0.48	1.6	4	TC
WWPT4X	46.0	0.89	1.0	46.0	1.30	1.0	1	LZ
XAFX22	41.3	-0.75	2.0	42.8	0.11	1.6	4	EN
Y99BL7	41.3	-0.75	1.4	41.1	-0.57	2.6	4	EN
YMZULV	43.8	0.13	2.0	44.0	0.57	2.0	3	LC

Containerboard Interlaboratory Testing Program
 Analysis 203
Edgewise Compressive Strength by T839, Corrugated board - ECT3
 TAPPI T839



Consensus (All Labs) Results

Month Mean	43.41	Grand Mean	42.55
Avg SDr	2.12	Avg SDr	2.15
SD btwn Labs	2.88	SD btwn Labs	2.63
Labs Incd	34	Labs Incd	34

Instrument Code List as Reported by the Labs

(CT) - Con-Ten	(EM) - Emerson 1200 Series
(EN) - Emerson 2200	(EX) - Emerson (model not specified)
(LC) - L&W Crush Tester 48	(LD) - L&W Crush Tester 248
(LX) - L&W 506	(LZ) - L&W Crush Tester (model not specified)
(TA) - Thwing-Albert (model not specified)	(TB) - TMI Monitor/Compression Tester, Model 17-70
(TC) - TMI Monitor/Compression Tester, Model 17-37	(TD) - TMI Digital Crush Tester, Model 17-09
(TK) - TLS Compression Tester, Model 5184	(TL) - Tech-Lab Systems Compression
(TM) - TMI/Hinde & Dausch	(XX) - Instrument make/model not specified by lab



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
2FPK6D	100.0 L	106.3	103.3	101.0	102.6	-1.25	8.4	2.8	104.4	-0.78	9.7	4.3	16	LC
2QE467	109.2	108.2	106.4	108.8	108.2	0.17	10.8	1.2	109.4	0.61	10.8	3.1	16	AH
3RJY9G	100.8	97.4 *L	104.4 L	107.6	102.6	-1.28	6.9	4.4	103.7	-0.99	8.2	4.0	16	LC
3XU64F	102.0	116.9	104.7	114.0	109.4	0.49	11.9	7.2	104.2	-0.84	11.4	5.6	16	AH
6EEAQY	107.8	119.6 *H	112.5	123.1 X	115.8	2.14 *	12.5	6.9	113.1	1.65	10.6	4.9	16	TB
6MCLYU	115.4	106.2	107.1	108.6	109.3	0.48	11.1	4.1	116.3	2.55 *	11.6	12.3 H	12	AX
6T94TR	102.7	103.1	107.8 H	108.7	105.6	-0.50	14.2	3.1	107.0	-0.06	10.8	3.1	14	LA
7EYTGW	105.6	107.0 L	104.4	110.4	106.9	-0.17	11.3	2.6	106.5	-0.20	11.8	4.7	16	XX
98LDAD	110.8	108.5	109.1	107.8	109.1	0.40	11.8	1.3	107.2	0.01	11.4	3.1	16	LC
99XQTL	111.7	116.4	107.4	106.3 L	110.5	0.77	7.4	4.6	108.1	0.26	7.1	2.9	16	TB
AJD66M	104.4	109.9	105.7	109.8	107.5	-0.01	9.9	2.8	107.5	0.09	9.6	3.0	16	LZ
BRYLCN	103.7	102.5	102.5 H	102.8	102.9	-1.19	13.5	0.6 L	101.6	-1.58	11.0	1.3	16	AH
BXRJAR	114.8	109.1	108.0	113.5	111.4	1.00	10.2	3.3	110.6	0.95	9.8	2.7	15	TB
CLMK9Q	119.5 *	113.9	112.9	109.5	114.0	1.67	13.0	4.2	110.9	1.04	10.6	5.5	16	LC
CPR3WL	101.0	99.3	100.0	104.3	101.1	-1.64	9.9	2.2	99.9	-2.06 *	9.8	3.2	16	LA
EGKFHP	No Data	No Data	112.6	99.8	106.2	-0.33	8.3	9.1 H	108.6	0.38	9.3	4.1	14	AH
ERP3AN	100.6	No Data	No Data	No Data	100.6	-1.79	11.2	0.0 L	99.6	-2.14 *	8.1	3.2	11	TC
EUYLCB	119.8 *	No Data	98.6	110.7	109.7	0.57	11.3	10.7 H	108.2	0.27	11.1	5.4	15	AX
F37U3B	107.2 L	109.0	106.3 L	112.3	108.7	0.31	5.7	2.6	110.0	0.78	8.2	5.4	16	LA
F7DXJR	115.7	113.5	112.0	110.1	112.8	1.37	11.5	2.4	114.6	2.07 *	10.8	4.6	16	LA
FNZEPA	107.7	114.6	110.9	108.4	110.4	0.75	11.8	3.1	110.6	0.94	11.9	2.6	16	LJ
FRLM3L	105.7	No Data	103.2	108.0	105.6	-0.49	11.6	2.4	106.0	-0.32	10.7	2.2	13	TB
FTFPYW	101.9	113.2	105.1	106.6	106.7	-0.20	13.2	4.8	106.5	-0.20	12.3	3.6	16	AH
FZEFHL	97.4	110.5	111.2	104.6	105.9	-0.40	11.6	6.4	107.3	0.04	11.5	5.3	16	TX
G9YBDU	102.5	104.3	101.6	106.3	103.7	-0.98	12.0	2.1	106.7	-0.15	10.3	2.6	16	TX
GW8GHD	112.2	117.6	117.1 *	113.6	115.1	1.96	13.7	2.6	110.4	0.90	12.6	5.2	16	LA
HAFE9Y	98.9	103.8	96.1 *	99.4	99.6	-2.05 *	11.0	3.2	101.8	-1.52	10.1	3.9	16	LA
L24UUQ	111.4 L	111.9	114.9	113.9	113.0	1.43	8.0	1.7	110.2	0.84	9.1	3.0	16	AA
L9QJXA	103.4	109.0	106.7	99.5	104.7	-0.73	10.3	4.1	105.4	-0.51	10.6	4.0	12	TC
LWPXNP	108.5	103.4	106.4	105.9	106.1	-0.37	9.5	2.1	106.0	-0.35	10.3	1.7	16	TB
M73LG2	118.2	113.8	104.2	No Data	112.1	1.18	11.7	7.2	109.7	0.69	11.2	5.9	14	LA
MDCXVF	100.9	107.1	107.0	101.8	104.2	-0.85	10.7	3.3	104.2	-0.85	11.1	3.3	15	AH
MNIX3Z	104.4	103.3	103.2	100.2	102.8	-1.22	8.5	1.8	101.7	-1.54	9.1	1.8	8	AH
N4LQEM	107.8	108.2	106.2	112.0	108.6	0.27	11.8	2.4	108.7	0.41	11.3	4.3	16	LZ

Containerboard Interlaboratory Testing Program
 Analysis 205
Bursting Strength (Mullen), 42 lb Linerboard - 42X2
 TAPPI Official Test Method T807



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
N9UZZX	115.3	109.5	108.3	110.0	110.8	0.84	13.4	3.1	110.4	0.90	11.0	3.7	16	AA
NN2G9J	115.4	108.7	101.4	109.0	108.6	0.29	9.3	5.7	107.5	0.08	8.9	4.4	16	LZ
P3AZG4	110.0	107.3	109.4	102.8	107.4	-0.03	11.3	3.2	110.4	0.89	10.6	3.6	15	LA
P4K6UT	116.6	111.0	106.6	107.0 L	110.3	0.73	5.2	4.6	109.9	0.75	5.6	2.8	16	AX
P8EZG9	105.0	104.1 L	113.1 L	110.5 L	108.2	0.18	3.9	4.3	105.6	-0.44	8.7	4.3	12	LJ
QZ4BVR	108.4	109.5	112.6	110.8	110.3	0.73	8.6	1.8	108.2	0.27	10.1	2.9	16	LA
RFN87Z	110.4	108.0	100.6	106.1	106.3	-0.32	9.5	4.2	107.3	0.04	11.2	3.9	15	XX
RK9JB3	110.7	109.2	114.6	111.9 H	111.6	1.06	13.6	2.3	110.5	0.93	11.8	4.0	13	LC
TA37M8	104.1	104.9	108.1	102.2	104.8	-0.68	8.6	2.5	104.8	-0.66	8.6	2.5	4	TB
TVGCVA	105.9	110.0	109.6	111.3	109.2	0.44	10.1	2.3	109.2	0.56	9.6	3.5	16	LA
UUZKEC	103.0 L	106.2	106.1	107.0 L	105.6	-0.50	6.4	1.8	102.5	-1.33	6.0	2.1	16	LZ
W2NZY9	112.4 L	107.2	107.1	107.5	108.6	0.27	5.1	2.6	108.9	0.48	5.2	1.9	15	XX
XG73FP	104.3	103.7	106.8	103.7	104.6	-0.74	10.0	1.5	106.1	-0.30	10.9	2.8	16	LA
XN73RG	108.3	110.4	112.2	116.5 *	111.8	1.12	7.0	3.5	106.3	-0.24	8.0	4.0	16	LB
Y8GALA	102.6	100.0	99.2	98.7 *	100.1	-1.91	9.0	1.7	100.4	-1.91	7.8	2.1	16	AH
YLVXY9	104.2	106.2	113.2	107.6	107.8	0.08	9.5	3.9	108.4	0.33	10.0	3.2	16	AH
YX9Q87	104.2	103.0	96.8 *	109.3	103.3	-1.08	10.1	5.1	104.5	-0.75	9.7	4.0	8	LA

Consensus (All Labs) Results											
Wk Mean	107.48	108.23	106.90	107.46	Month Mean	107.49				Grand Mean	107.20
Avg SDr	10.21	11.11	10.04	10.29	Avg SDr	10.41				Avg SDr	10.08
SD btwn Labs	5.70	4.80	4.81	4.36	SD btwn Labs	3.87				SD btwn Labs	3.56
Labs Includ	50	47	50	48	SD btwn Wks	4.07				SD btwn Wks	4.09
Labs Exclud	0	0	0	1	Labs Includ	51				Labs Includ	51
Labs not rcvd	1	4	1	2							

Instrument Code List as Reported by the Labs

- (AA) - Perkins Model A
- (AH) - Perkins Model AH
- (AX) - Perkins Mullen Tester (model not specified)
- (LA) - L & W Bursting Strength Tester
- (LB) - L & W Burst-O-Matic
- (LC) - L & W Autoline
- (LJ) - L & W Bursting Strength Tester J-Type
- (LZ) - L & W (model not specified)
- (TB) - TMI Monitor/Burst 1000
- (TC) - TMI Monitor/Burst (Model 13-71)
- (TX) - TMI Monitor/Burst (model not specified)
- (XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
Analysis 206

Bursting Strength (Mullen), 69 lb Linerboard - 69Y2
TAPPI Official Test Method T807



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
22WJ2T	163.1	161.7	170.2	165.4	165.1	0.27	20.9	3.7	165.5	0.68	21.9	6.4	12	LJ
26KVD6	164.1	162.8	159.0	160.0	161.5	-0.25	15.0	2.4	160.8	-0.23	17.7	3.6	12	AH
27PT3E	161.9	164.4	158.4	159.8	161.1	-0.31	20.9	2.6	161.3	-0.14	20.4	2.1	12	TB
2AN4AZ	160.7	147.7	152.5	165.7	156.6	-0.96	18.6	8.1	159.8	-0.43	19.6	5.7	12	LA
2FDJP7	165.3	174.6	175.0	166.2	170.3	1.03	20.1	5.2	168.9	1.32	19.4	3.5	11	AA
2QXVEQ	155.1	154.9	154.1	152.9	154.3	-1.31	16.4	1.0	156.1	-1.14	18.8	2.6	12	LA
2TZTCC	163.4	168.2	178.5*	172.7	170.7	1.09	18.4	6.4	168.0	1.15	18.5	6.2	12	LC
3K8VJV	165.6	164.1	172.4	167.1	167.3	0.59	16.9	3.6	168.4	1.23	19.7	3.4	12	TB
4FJPYC	166.7	166.2	162.7	168.8	166.1	0.42	18.4	2.5	163.8	0.35	16.9	4.0	12	XX
4GPXPD	160.4	156.5	161.1	156.7	158.7	-0.66	17.9	2.4	157.7	-0.83	19.1	4.4	12	LA
4PJQQW	158.4	No Data	155.0	153.1	155.5	-1.13	21.3	2.7	156.6	-1.05	20.0	3.1	11	TB
4Y7PAZ	145.8*	151.5	158.2	153.0	152.1	-1.62	16.8	5.1	152.6	-1.80	19.2	4.3	12	LA
77NQWW	170.5	168.2	161.7	173.5	168.5	0.77	19.0	5.0	167.6	1.07	21.4	4.9	12	XX
7QYHDQ	164.9	161.9	156.8	167.4	162.8	-0.07	20.1	4.6	160.2	-0.36	18.9	4.5	12	LA
9G9CXX	164.8	166.0	163.2	165.4	164.9	0.24	20.9	1.2	161.5	-0.11	13.0	2.6	12	LZ
9HJZBN	162.3	158.6	157.5	167.2	161.4	-0.26	17.5	4.4	161.2	-0.15	18.3	4.4	12	LZ
BHYTAN	183.9*	183.1*	173.0	181.7*	180.4	2.51*	20.4	5.0	178.7	3.20X	20.4	6.6	12	AX
CGHHUP	175.4	183.5*	175.6	173.8	177.1	2.02*	24.5	4.3	166.8	0.92	23.2	8.2	12	TX
CNTZRP	169.4	170.1	170.1	178.1	171.9	1.27	23.0	4.1	170.3	1.60	21.7	4.3	12	LA
D3GM73	162.6	167.2	164.4	158.9	163.3	0.00	16.5	3.5	159.1	-0.57	18.2	5.9	12	LB
DGBVPG	169.6H	165.0	163.7	175.0	168.3	0.75	22.3	5.1	169.2	1.38	22.6	3.5	12	LA
EQN FAC	169.8	159.5	159.5	165.0	163.4	0.03	20.5	4.9	160.8	-0.23	20.8	4.0	12	AA
ETL7U4	168.4	160.2	154.7	155.2	159.6	-0.52	14.4	6.3	163.3	0.24	17.7	5.7	12	LA
ETVVFH	155.6	166.9L	162.9	174.9L	165.1	0.27	13.4	8.0	163.2	0.22	17.3	7.0	10	LJ
FRL677	159.4	156.6	160.9	165.6	160.6	-0.38	21.6	3.8	164.2	0.43	21.4	4.9	12	LC
G74AYK	151.6	No Data	No Data	No Data	151.6	-1.70	19.3	0.0 L	149.4	-2.43*	10.5	3.0	9	TC
GRDKTM	153.3	152.9	152.7	159.8	154.7	-1.24	20.6	3.4	154.6	-1.43	22.1	3.6	12	LA
GTWKEH	161.0	162.1	161.9	161.5	161.6	-0.23	12.4	0.5 L	162.3	0.05	12.9	2.4	12	AH
H333B8	159.2	No Data	160.3	156.0	158.5	-0.69	13.7	2.2	159.7	-0.44	16.3	6.1	11	AX
H3Q3RJ	168.1	158.0	158.7	155.9	160.2	-0.44	19.9	5.4	159.7	-0.44	21.6	5.9	12	AH
HDX3Z4	153.5	152.3	152.7	149.9	152.1	-1.62	20.0	1.5	152.1	-1.90	20.0	1.5	4	AH
JKVAX4	176.0	177.4	184.0X	No Data	179.1	2.32*	20.2	4.3	167.8	1.12	19.2	12.1H	11	LA
JYEMKC	161.1	165.7	161.5	160.5	162.2	-0.15	21.8	2.4	162.6	0.11	21.6	1.9	8	LC
JYGLMK	155.6	157.8	156.4	157.0	156.7	-0.95	11.1	0.9	157.4	-0.88	11.6	2.6	12	XX

Containerboard Interlaboratory Testing Program
 Analysis 206
Bursting Strength (Mullen), 69 lb Linerboard - 69Y2
 TAPPI Official Test Method T807



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
KQCTBW	169.4 L	169.6 L	171.0	172.4 L	170.6	1.08	6.3	1.4	171.4	1.79	10.7	3.3	12	AX
NMPK4E	162.9	157.8	158.8	168.8	162.1	-0.17	16.8	5.0	164.0	0.39	17.9	3.3	12	TB
NTK7EF	No Data	No Data	169.9	170.0	170.0	0.98	21.1	0.1 L	161.6	-0.08	20.4	7.8	10	AH
PU6KUB	161.7	151.8	154.4	160.4	157.0	-0.90	17.6	4.7	168.0	1.15	18.7	17.4 H	6	TB
Q8QENF	163.3	164.1	161.0	170.8	164.8	0.23	16.1	4.2	163.8	0.34	16.1	4.4	12	LZ
QBG984	172.7	161.4	156.7	155.4	161.5	-0.25	20.7	7.8	161.4	-0.12	21.6	5.5	8	TC
QGBM7H	167.8	164.5	169.2	176.4	169.5	0.91	14.7	5.0	165.8	0.72	13.1	7.4	12	AH
TPGCUZ	150.2	175.3	146.0*	161.6	158.3	-0.72	12.1	13.1 H	156.8	-0.99	11.0	11.6 H	12	TB
UHBGC8	178.4	178.7	169.5 H	165.0	172.9	1.41	25.0	6.8	165.9	0.74	19.9	6.5	12	LA
V63Z4G	167.0	170.8	168.4	165.2	167.9	0.68	23.1	2.4	167.9	1.12	24.1	3.3	12	AH
WA79ZB	153.3	153.4	156.0	154.2	154.2	-1.31	14.6	1.3	157.7	-0.84	16.6	6.0	12	LC
WFT92A	167.6	149.4	165.0	161.6	160.9	-0.34	18.6	8.1	156.3	-1.10	17.7	7.5	12	AH
WLX92D	169.2	168.5	158.5	151.2	161.9	-0.20	21.2	8.6	160.9	-0.21	21.0	5.6	12	LZ
XCBFHU	160.7	166.2	161.1	167.2	163.8	0.08	16.1	3.4	164.2	0.43	20.2	6.7	12	LA
XV26TT	169.2	171.3	168.9	174.5	171.0	1.13	19.8	2.6	170.9	1.70	19.9	3.0	12	LA
Z4BQZG	164.0	158.2	161.8	161.7	161.4	-0.26	21.1	2.4	157.1	-0.94	20.1	4.4	12	AH
Z4PJWB	150.6	157.7	158.1	147.3*	153.4	-1.43	16.5	5.3	154.7	-1.40	18.2	5.5	12	LC

Consensus (All Labs) Results

Wk Mean	163.48	163.49	162.03	163.82	Month Mean	163.22	Grand Mean	162.01
Avg SDr	19.19	18.89	17.65	18.86	Avg SDr	18.70	Avg SDr	18.86
SD btwn Labs	7.56	8.41	6.97	8.09	SD btwn Labs	6.85	SD btwn Labs	5.22
Labs Includ	50	47	49	49	SD btwn Wks	4.85	SD btwn Wks	5.85
Labs Exclud	0	0	1	0	Labs Includ	51	Labs Includ	50
Labs not rcvd	1	4	1	2				

Instrument Code List as Reported by the Labs

- (AA) - Perkins Model A
- (AX) - Perkins Mullen Tester (model not specified)
- (LB) - L & W Burst-O-Matic
- (LJ) - L & W Bursting Strength Tester J-Type
- (TB) - TMI Monitor/Burst 1000
- (TX) - TMI Monitor/Burst (model not specified)
- (AH) - Perkins Model AH
- (LA) - L & W Bursting Strength Tester
- (LC) - L & W Autoline
- (LZ) - L & W (model not specified)
- (TC) - TMI Monitor/Burst (Model 13-71)
- (XX) - Instrument make/model not specified by lab

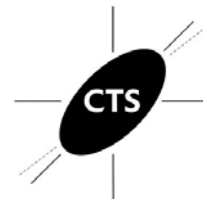


WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
2AFCHP	101.1	89.3	96.6	92.0	94.8	0.48	4.0	5.2	93.8	0.24	4.1	3.5	16	LC
2X4XKW	96.0	92.1	89.1	86.1	90.8	-0.45	3.3	4.2	92.3	-0.14	3.5	2.8	16	LX
2XHAGG	96.4	96.4	93.9	94.8	95.3	0.62	2.9	1.2	96.6	0.96	3.7	1.9	16	LD
327ZHY	86.9	89.4	86.8	86.6	87.4	-1.26	3.8	1.3	86.6	-1.62	3.8	1.7	16	TM
33F6WM	88.4	93.1	90.4	86.8	89.7	-0.73	3.6	2.7	93.6	0.18	3.6	4.6	8	LC
4B3LPV	91.7	91.0	90.1	91.6	91.1	-0.39	3.3	0.7	90.7	-0.55	3.0	1.0	15	TC
4WD9Y9	91.5	89.1	87.9	89.9	89.6	-0.75	3.4	1.5	89.5	-0.87	3.1	1.9	16	EM
67UJJK	93.5	94.9	95.7	98.8	95.7	0.71	4.4	2.2	95.9	0.79	4.2	1.6	8	LC
7FNDTU	97.6	96.6 L	95.9	99.0	97.2	1.07	3.0	1.3	95.7	0.73	3.4	2.1	16	LC
7VM7VP	90.8	97.9	95.6	97.0	95.3	0.61	5.2	3.2	97.6	1.24	4.4	3.8	16	MB
8PM6AU	93.3	94.8	94.6	No Data	94.3	0.36	5.3	0.8	94.1	0.33	4.7	3.0	11	MZ
93YY7C	89.9	88.7	90.3	88.8	89.4	-0.79	2.4	0.8	90.5	-0.61	2.9	1.6	16	TD
98R266	89.2	84.6	88.1 H	85.8	86.9	-1.38	4.6	2.1	86.5	-1.64	4.4	3.1	16	EM
9LKZD7	94.8	94.4	100.6	100.7	97.6	1.16	4.6	3.5	97.9	1.30	4.3	3.4	16	LC
CGD3GP	93.9	95.1	95.2	No Data	94.7	0.47	3.3	0.7	94.5	0.44	3.7	1.5	15	LC
CQGDME	102.4*	102.7*	102.7*	103.9*	102.9	2.42*	4.1	0.7	102.8	2.57*	4.1	1.1	16	LD
CZQ86R	104.8*	99.6	103.0*	102.1	102.4	2.29*	4.4	2.2	101.4	2.22*	4.4	2.6	8	LZ
D42BV3	82.3*	88.5	83.4	89.3	85.9	-1.62	4.5	3.6	86.3	-1.69	3.4	2.5	16	LD
EJH2RE	93.6	99.4	94.6	92.8	95.1	0.56	3.5	3.0	94.8	0.51	4.1	3.1	13	LC
F3EJYM	No Data	No Data	99.8	97.4	98.6	1.40	2.6	1.7	96.4	0.91	4.3	2.7	14	TC
F99F2K	99.3	No Data	No Data	No Data	99.3	1.56	3.3	0.0 L	99.3	1.67	4.0	3.3	11	LC
FFFAB2	94.9	96.9	95.5	94.8	95.5	0.66	3.6	1.0	96.9	1.05	3.7	1.5	16	LD
FP49YL	97.3	No Data	96.1	94.4	95.9	0.76	3.3	1.5	93.7	0.22	3.5	2.1	13	LD
FQZUUQ	88.1	89.4	89.9	92.0	89.8	-0.69	3.6	1.6	89.8	-0.78	3.6	1.6	4	LD
GDJQRU	98.4	98.8	97.4	96.2	97.7	1.18	4.0	1.2	96.3	0.89	3.7	2.2	16	LC
GT93VN	90.8	90.8	91.5	90.7 H	91.0	-0.42	6.2	0.4 L	90.4	-0.62	6.0	0.7	16	LC
HRZ9W3	91.2	93.8	93.0	98.3	94.1	0.32	3.3	3.0	94.0	0.29	3.5	2.8	16	LC
HWRXCR	94.5	86.6	88.8	88.3	89.6	-0.75	3.6	3.4	89.4	-0.88	3.7	2.0	16	EN
J34W6Y	88.1	87.9	85.5	91.1	88.1	-1.09	3.3	2.3	90.5	-0.61	3.8	2.2	16	TD
J4YJH3	88.6	92.4	86.4	91.5	89.7	-0.71	3.2	2.7	90.5	-0.61	4.4	1.8	16	EM
JP8ZHD	91.5	93.0	92.3	96.1	93.2	0.12	5.2	2.0	91.2	-0.44	4.9	2.0	16	LC
JYBAN3	96.6	95.8	83.9	79.6*	89.0	-0.89	3.6	8.5 H	92.0	-0.21	3.8	6.5 H	8	LC
K9TQNH	86.8	91.6	88.3	90.4	89.3	-0.82	4.3	2.1	91.3	-0.39	4.5	3.1	16	LD
KCPNN9	92.0	93.2	90.7	89.6	91.4	-0.32	3.6	1.6	91.1	-0.45	3.7	1.8	16	EN



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
KRRCML	90.5	92.6	89.8	90.0	90.7	-0.47	2.2	1.3	85.9	-1.81	1.9	5.5 H	16	XX
LBTHRE	89.9	93.1	92.1	93.9	92.2	-0.12	3.9	1.7	93.5	0.18	4.5	1.6	16	LC
LKJ4AJ	89.2	94.1	94.6	93.9	93.0	0.05	3.7	2.5	95.2	0.60	4.1	3.0	16	LC
MA7GDB	90.7	96.0	94.1	98.2	94.8	0.48	4.5	3.2	94.1	0.33	4.1	4.7 H	15	XX
N9AHHA	87.3	89.6	84.0	87.5	87.1	-1.34	4.1	2.3	91.2	-0.44	3.6	4.5	12	MB
NV4BNK	102.6*	101.9*	101.8	101.9	102.0	2.21*	3.7	0.4 L	98.7	1.52	4.0	2.5	16	EM
PHRJ8	92.2	97.0 H	98.9	99.0	96.8	0.96	6.0	3.2	96.4	0.91	4.9	2.8	16	LC
QQ7M3N	87.9	87.3	87.1	86.9	87.3	-1.29	5.0	0.4 L	88.9	-1.03	4.4	1.5	16	TX
RE3T9W	92.7	No Data	89.3	95.3	92.4	-0.07	4.2	3.0	91.2	-0.44	4.1	2.3	15	LZ
RWVHK8	89.4	87.7	85.9	86.2	87.3	-1.29	5.3	1.6	87.9	-1.28	4.6	2.0	16	TB
T2K74J	78.5 X	80.6*	79.4*	81.1*	79.9	-3.05 X	3.7	1.2	83.3	-2.48*	3.5	2.5	16	XX
T8TN3C	81.4*H	82.3*	86.1	85.9	83.9	-2.09*	6.8	2.4	80.1	-3.29 X	7.8	9.3 H	16	IM
TBBLWU	90.9 L	90.4 L	89.3	88.7	89.8	-0.69	1.8	1.0	90.6	-0.59	2.5	1.5	16	LZ
TVWLZ4	94.3	89.5	94.8	91.9	92.6	-0.03	4.8	2.4	95.7	0.72	4.5	3.5	15	LC
TYQFKX	92.0	92.2	89.8	90.5	91.1	-0.38	3.7	1.1	91.3	-0.41	3.8	1.8	12	EM
UF7A9Z	97.8	94.9	98.3	99.1 H	97.5	1.14	4.4	1.8	95.6	0.70	4.6	2.4	16	LX
UMMCDB	90.3	86.7	92.7	88.2	89.5	-0.77	4.8	2.6	86.7	-1.59	4.3	2.7	16	LZ
UYHDXR	88.5	90.0	91.9	92.1	90.6	-0.50	2.5	1.7	92.4	-0.12	3.6	2.4	16	LC
WATBRQ	90.2	85.2	91.2	No Data	88.9	-0.92	4.8	3.2	91.6	-0.33	5.9	5.1 H	14	LC
WY94T2	91.7	92.9	93.3 L	93.6	92.9	0.03	3.9	0.8	92.0	-0.23	3.7	1.2	16	LC
XALZGY	95.8	93.7	89.6	98.2	94.3	0.37	4.2	3.6	92.1	-0.20	4.8	3.8	16	LC
XFCTPY	87.7	85.6	91.4	87.9	88.1	-1.09	4.3	2.4	90.3	-0.67	4.1	2.6	16	EM
Y28FQ9	95.9	98.9	97.5	98.9	97.8	1.20	3.9	1.5	97.1	1.10	5.7	3.3	16	LC
YPRVXY	92.9 L	93.0 L	93.2	93.5	93.1	0.09	2.0	0.3 L	94.2	0.35	2.4	1.7	12	EM
YQUW9H	90.7	86.3 H	92.9 H	No Data	90.0	-0.66	7.3	3.4	91.4	-0.37	6.0	3.3	14	LC
Z44NTV	98.4	90.0	98.7	98.7 L	96.5	0.89	2.4	4.3	95.9	0.80	3.5	4.9 H	12	LC
ZKX4E9	95.7	94.8	94.7	96.0	95.3	0.61	3.2	0.6	94.4	0.39	3.6	1.2	16	LD

Consensus (All Labs) Results									
Wk Mean	92.59	92.17	92.26	92.74	Month Mean	92.73	Grand Mean	92.85	
Avg SDr	4.34	4.22	4.00	3.77	Avg SDr	4.10	Avg SDr	4.09	
SD btwn Labs	4.63	4.69	5.00	5.32	SD btwn Labs	4.22	SD btwn Labs	3.86	
Labs Includ	59	57	60	56	SD btwn Wks	2.55	SD btwn Wks	2.88	
Labs Exclud	1	0	0	0	Labs Includ	60	Labs Includ	60	
Labs not rcvd	1	4	1	5					



Instrument Code List as Reported by the Labs

(EM) - Emerson 1200

(IM) - Instron 4486

(LD) - L&W Crush Tester 248

(LZ) - L & W Crush Tester (model not specified)

(MZ) - Messmer Buchel (model not specified)

(TC) - TMI Monitor/Compression Tester, Model 17-37

(TM) - TMI/Hinde & Dauch

(XX) - Instrument make/model not specified by lab

(EN) - Emerson 2200

(LC) - L & W Crush Tester 48

(LX) - L & W 506

(MB) - Messmer Buchel K440

(TB) - TMI Monitor/Compression Tester, Model 17-70

(TD) - TMI Digital Crush Tester, Model 17-09

(TX) - TMI Digital Crush Tester (model not specified)



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
28JEV6	148.8	149.2	151.5	149.5	149.8	-0.07	4.4	1.2	149.8	0.03	4.4	1.2	4	LD
29YRH8	159.6	154.3 ^H	151.8	148.7	153.6	0.54	6.1	4.6	152.8	0.50	5.6	4.1	12	LD
2K2CG8	162.1	160.8 [*]	161.2	159.0	160.8	1.67	5.6	1.3	157.6	1.23	4.6	4.8	12	EM
2NHVGU	148.7	146.1	165.1	164.8	156.2	0.94	4.2	10.2 ^H	151.6	0.32	4.8	8.8 ^H	10	LC
3484XE	144.1	141.4	136.2	No Data	140.6	-1.52	5.3	4.0	138.0	-1.77	6.1	6.1	11	LC
39FWJX	153.3	145.6	151.4	157.6	152.0	0.28	6.2	5.0	153.4	0.58	5.9	4.1	12	LC
3XHQVQ	155.1	152.0	149.8	157.2	153.5	0.53	5.3	3.3	154.3	0.72	5.6	3.1	12	LX
42PBZW	158.8	No Data	No Data	No Data	158.8	1.36	4.0	0.0 ^L	152.2	0.40	4.8	5.1	9	LC
4CCCF7	155.7	156.1	151.5	153.8	154.3	0.64	5.6	2.1	154.8	0.80	6.2	2.2	12	LC
4UBCKZ	141.6	144.9	145.2	142.4	143.5	-1.05	6.4	1.8	140.8	-1.35	6.0	3.6	12	LZ
4XJZFN	151.7	153.2	147.4	152.1	151.1	0.14	4.5	2.5	150.8	0.20	5.0	3.8	12	EN
6DCPHC	149.1	143.3	141.9	144.7	144.8	-0.86	4.4	3.1	147.2	-0.37	4.4	3.0	12	TD
6EK88V	151.7	152.5	158.6	155.2	154.5	0.68	5.2	3.1	150.1	0.08	6.3	4.1	12	TM
6Q6DKR	150.3	153.5	146.1	156.4	151.6	0.22	4.8	4.4	156.1	1.00	5.2	7.6	12	LC
6WWBJF	147.0	147.7	148.7	151.7	148.8	-0.22	4.1	2.1	149.8	0.04	4.5	2.4	12	LC
72LXHY	154.6	No Data	154.5	154.8	154.6	0.70	5.3	0.2 ^L	153.0	0.52	4.9	3.9	11	LD
7GE84Y	144.7	144.6	145.0	145.1	144.9	-0.84	6.0	0.2 ^L	144.7	-0.74	5.9	0.5 ^L	12	LC
7TULBX	163.7 [*]	171.9 ^X	162.4 ^H	163.8	165.4	2.40 [*]	7.4	4.3	162.1	1.92	7.1	4.9	8	LZ
ABFWHP	120.8 ^{XH}	146.1	150.3	147.0	141.1	-1.44	7.2	13.6 ^H	132.0	-2.69 [*]	8.8	15.8 ^H	12	IM
AEP946	151.7	144.7	142.9	147.4	146.7	-0.56	5.7	3.8	146.0	-0.55	5.2	2.6	12	TM
AM6RLH	140.0	139.4	137.9	140.1	139.4	-1.71	4.4	1.0	148.1	-0.22	4.9	7.7	12	MB
AVHX6T	No Data	No Data	156.9	155.5	156.2	0.95	7.0	1.0	151.5	0.30	5.9	5.9	10	TC
BQGYK3	146.4 ^H	150.4 ^H	149.4 ^H	146.1 ^H	148.1	-0.33	9.0	2.1	141.2	-1.28	6.7	6.5	12	EM
BZX29M	150.3	145.6	151.9	146.6	148.6	-0.25	5.7	3.0	148.5	-0.17	5.3	3.7	8	LC
CWPL9P	154.4	151.1	151.5	No Data	152.3	0.33	7.1	1.8	150.6	0.16	6.5	4.9	8	MZ
DNVCJX	146.8	143.5	145.4 ^L	140.7	144.1	-0.96	4.0	2.6	143.7	-0.90	4.5	1.9	12	EN
DVJ387	146.4	153.1	145.3	147.3	148.0	-0.34	3.9	3.5	148.4	-0.17	3.4	3.5	12	LD
DZ32VL	148.9	148.1	147.3	No Data	148.1	-0.33	4.2	0.8	149.0	-0.09	4.5	2.6	11	LC
ELJFA8	147.8	151.3	150.2	148.7 ^L	149.5	-0.11	2.9	1.6	151.4	0.28	2.5	5.4	12	LZ
G38WG8	158.0	No Data	160.7	159.3	159.3	1.44	4.6	1.3	153.5	0.60	5.1	6.3	11	LZ
GNXWFG	150.8 ^L	153.2	146.7 ^L	150.8	150.4	0.03	2.6	2.7	148.6	-0.15	3.1	2.8	12	EM
H84PJ3	139.7	135.4 [*]	137.8 ^L	147.7	140.2	-1.58	4.2	5.3	140.1	-1.45	4.8	3.5	11	EM
HAFX6F	145.0 ^L	156.2	154.3	155.2	152.7	0.39	4.4	5.2	147.7	-0.28	4.1	4.9	12	LC
HC3G7D	156.5	144.7	151.3	147.1	149.9	-0.05	4.4	5.2	147.4	-0.33	6.2	4.3	12	LC



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
JDUCD2	149.1	147.6	154.3	155.7	151.7	0.23	4.6	3.9	151.8	0.34	4.5	2.3	12	LC
KZD6FD	140.8	138.5	136.0	142.5	139.4	-1.70	4.4	2.8	139.8	-1.50	4.0	2.8	12	TB
L4G4K6	171.2X	171.7X	167.5*	171.9*	170.6	3.21X	5.3	2.1	166.8	2.64*	5.0	3.3	12	LD
LRHN4E	139.5	145.6H	140.9	140.2	141.5	-1.37	5.9	2.7	145.5	-0.62	5.1	4.8	12	LD
M3H28Q	160.8	167.2X	166.1*	166.5	165.1	2.35*	4.8	2.9	164.9	2.34*	5.0	3.8	12	LC
M8UTLJ	159.2L	157.1L	154.4L	157.7L	157.1	1.09	1.6	2.0	151.5	0.30	2.8	6.1	12	XX
MW8FZA	148.2	156.9	151.9	154.9	153.0	0.44	6.7	3.8	150.8	0.18	6.4	4.1	12	LC
NCWTZN	149.4	146.9	145.2	143.4	146.2	-0.63	4.2	2.5	144.1	-0.84	3.7	2.3	12	EM
PDP6AL	155.6	157.4	155.8	159.4	157.0	1.08	5.8	1.8	157.2	1.16	6.0	2.4	12	LC
PJ6YLQ	156.2	155.8	156.9L	154.0	155.7	0.87	4.0	1.2	154.5	0.76	4.8	3.6	12	LC
PLNKBM	140.6H	136.9*	134.8	135.9	137.1	-2.07*	8.0	2.5	137.0	-1.92	6.2	4.4	12	XX
PP2DVZ	150.1	152.1	160.9	158.4	155.4	0.82	5.3	5.1	154.5	0.75	5.5	5.6	11	LC
PQ77A7	146.1	141.2	151.2	147.7	146.5	-0.58	6.6	4.1	147.3	-0.35	7.3	3.0	12	EM
QHAXD7	157.0	157.7	153.6	159.7	157.0	1.07	4.6	2.5	153.3	0.57	4.9	3.3	12	XX
TCCZLT	153.6	147.8	136.8	137.8	144.0	-0.98	5.3	8.1	144.0	-0.85	5.3	8.1H	4	LC
TJHJ8Q	153.5L	151.1	152.8	151.3	152.2	0.31	2.6	1.2	148.3	-0.19	3.9	5.9	12	TD
TZ6ZD8	147.9	145.7	146.9	152.0	148.1	-0.33	4.0	2.7	147.2	-0.36	3.8	2.0	12	LC
U97CMC	150.5	150.0	153.1	152.9	151.6	0.23	5.3	1.6	156.7	1.09	5.5	4.0	12	LC
VHAJH9	143.0	142.8	144.0	139.3	142.3	-1.25	4.1	2.1	143.0	-1.01	3.4	2.6	12	TC
WZ68T4	155.1	150.0	154.3	145.4	151.2	0.16	4.0	4.5	149.9	0.04	3.7	3.4	12	LC
X6GJFW	151.4	156.1	155.7	159.4H	155.7	0.86	7.4	3.3	158.1	1.30	6.0	3.9	12	MB
XG8CRZ	151.0	153.0	143.2	140.2	146.9	-0.53	4.9	6.1	147.7	-0.29	4.9	4.4	12	LX
Y2BL3G	156.9	157.5	156.1	155.0	156.4	0.98	3.6	1.1	157.5	1.21	5.1	3.0	12	LD
YKNZNH	149.7	143.3	136.4	No Data	143.1	-1.11	4.1	6.7	139.7	-1.51	6.6	7.1	11	LC
YVY86X	145.3	147.4	153.1H	153.8	149.9	-0.05	6.4	4.2	151.5	0.30	5.3	6.3	12	LC
ZJQ7GQ	142.0	148.2	147.7	139.7	144.4	-0.91	4.3	4.2	145.1	-0.68	4.8	4.1	12	EM

Consensus (All Labs) Results									
Wk Mean	150.45	148.95	150.13	151.11	Month Mean	150.20	Grand Mean	149.57	
Avg SDr	5.39	5.30	5.22	4.82	Avg SDr	5.24	Avg SDr	5.26	
SD btwn Labs	5.98	5.86	7.72	7.83	SD btwn Labs	6.34	SD btwn Labs	6.53	
Labs Includ	57	53	59	55	SD btwn Wks	4.03	SD btwn Wks	4.92	
Labs Exclud	2	3	0	0	Labs Includ	59	Labs Includ	60	
Labs not rcvd	1	4	1	5					



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(TC) - TMI Monitor/Compression Tester, Model 17-37

(TM) - TMI/Hinde & Dauch

(EN) - Emerson 2200

(LC) - L & W Crush Tester 48

(LX) - L & W 506

(MB) - Messmer Buchel K440

(TB) - TMI Monitor/Compression Tester, Model 17-70

(TD) - TMI Digital Crush Tester, Model 17-09

(XX) - Instrument make/model not specified by lab



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
232LCP	23.7 L	22.7 L	25.8 L	25.0 L	24.3	0.02	0.5	1.4	25.0	0.75	0.4	1.4 H	12	LA
2FWCVB	23.0	22.8	22.9	24.0	23.2	-0.96	1.8	0.6	22.9	-1.73	1.8	0.6	16	XX
2GVTBY	27.4	25.6	25.8	25.7	26.1	1.56	2.2	0.8	25.5	1.29	2.0	1.3	16	LW
2NAMM2	26.7 L	27.4 *L	27.0 *L	26.8 *L	27.0	2.28 *	0.0	0.3	38.0	15.61 X	0.0	6.7 H	16	LU
2X9CA6	23.8	23.7	24.5	24.3	24.1	-0.18	2.1	0.4	23.8	-0.62	2.1	0.5	16	LW
3LNCRN	25.0	24.3	24.1	23.3	24.2	-0.07	2.1	0.7	24.6	0.25	2.1	0.9	8	LW
3YPM7G	23.9	23.6	24.1	25.1	24.2	-0.09	2.1	0.6	23.8	-0.68	2.1	0.7	16	XX
4U7UL2	25.4 L	23.9	26.3	23.7	24.8	0.45	1.3	1.2	25.4	1.12	1.5	1.0	16	LZ
7CZAYW	23.9	24.4	25.2	25.3	24.7	0.37	2.4	0.7	24.4	0.03	2.0	0.8	16	LU
99YX3N	26.5	25.9	24.6 H	25.4	25.6	1.12	3.7	0.8	25.2	0.96	4.0	0.9	16	LW
9R9KGL	26.2	23.2	24.2	23.3	24.2	-0.05	1.9	1.4	24.2	-0.20	2.0	1.1	16	LW
AEGV2V	25.2	26.1	26.8	25.6	25.9	1.41	2.3	0.7	25.9	1.79	2.3	0.7	4	XX
AJ82NJ	25.9	24.2	24.7	24.0	24.7	0.35	2.2	0.8	24.7	0.37	2.0	0.7	16	LU
AMUNCQ	24.9	23.3	22.5	23.5	23.6	-0.62	1.7	1.0	24.1	-0.27	2.0	0.7	14	LW
DW7Q4E	25.2	25.4	25.1	25.0	25.2	0.76	1.4	0.2	25.2	0.97	1.3	0.3	16	LW
GFJB7D	25.4	25.1	25.4	24.5	25.1	0.69	1.7	0.4	24.9	0.63	1.7	0.8	15	LU
GMKHUT	23.9	23.0	24.5	24.6	24.0	-0.23	2.5	0.7	24.2	-0.25	2.4	0.8	16	LW
HBB3K3	22.6 L	22.7 L	23.1 L	23.5 L	23.0	-1.11	0.4	0.4	23.4	-1.16	0.5	1.5 H	16	LA
HBD26H	24.0	25.7	25.4	24.3	24.8	0.46	2.2	0.8	24.7	0.41	2.1	0.7	16	LW
HLBNTM	21.3 *	No Data	No Data	No Data	21.3	-2.51 *	1.3	0.0 L	21.0	-3.86 X	1.7	0.4	11	LZ
J8MUUE	24.5	24.8	24.5	24.2	24.5	0.18	1.3	0.2	24.4	0.00	1.3	0.3	12	LU
KAYDXF	25.2	24.6	25.0	26.2	25.2	0.81	2.4	0.7	25.1	0.81	2.2	0.5	16	LU
LJQW7M	25.4	25.1	24.7 L	25.0	25.0	0.64	1.7	0.3	25.0	0.76	1.7	0.3	4	XX
NZ4CBM	24.5	23.8	23.3	23.1	23.6	-0.55	2.1	0.6	23.6	-0.86	2.1	1.1	16	LZ
P2C4G9	24.2	23.4	23.9	23.0	23.6	-0.57	2.4	0.5	23.6	-0.84	2.1	0.5	16	LU
PMK7TK	25.1	25.8	24.5	23.0	24.6	0.25	2.6	1.2	24.9	0.60	2.6	0.9	16	LW
PZU6XQ	22.4 L	22.8 L	22.2 L	No Data	22.5	-1.56	0.4	0.3	23.1	-1.44	0.4	1.2	14	XX
QWDWM	21.2 *	23.2	21.7 *	21.5 *	21.9	-2.04 *	1.9	0.9	22.6	-2.05 *	1.7	1.0	8	LU
RZGMNG	22.8	21.9	21.9 *	22.1	22.2	-1.80	1.6	0.5	22.6	-2.03 *	1.8	0.7	16	LU
TNXVGD	24.1	24.1	24.4	21.7 *	23.6	-0.62	2.1	1.2	24.3	-0.14	2.3	1.1	16	LA
TQEFU3	27.4 *	25.2	25.2	24.4	25.6	1.07	2.4	1.3	24.8	0.44	2.2	1.0	15	LW
UIJ98WY	25.7 L	27.1 *L	24.5 L	24.5 L	25.4	0.97	0.1	1.3	25.4	1.13	0.1	0.8	16	TS
VEB9M9	25.0	23.7	24.7	25.1	24.6	0.28	1.6	0.7	24.7	0.33	1.8	0.5	15	BK
VFHJLX	25.9 L	No Data	24.4 L	26.1 L	25.5	1.00	0.0	0.9	25.9	1.69	0.0	1.1	15	LZ



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
VMHT4J	25.0	25.8	23.4	25.5	24.9	0.52	2.2	1.1	25.0	0.67	2.4	0.8	16	XX
WC38JE	23.9 ^L	22.8 ^L	23.0 ^L	22.6 ^L	23.1	-1.02	0.4	0.5	22.9	-1.65	0.4	0.5	16	XX
WPGACR	23.1	22.9	23.7	23.5	23.3	-0.84	1.5	0.4	23.9	-0.58	1.6	1.1	15	XX
XBFB38	24.3	No Data	25.3	24.1	24.6	0.23	2.0	0.7	24.8	0.44	2.0	0.5	13	LW
XK6JRJ	24.7	24.6	23.9	23.5	24.2	-0.11	2.6	0.6	24.3	-0.09	2.4	0.6	16	LW
ZJJLDN	23.6	23.4	23.4	24.5	23.7	-0.49	2.1	0.5	23.6	-0.86	1.8	0.7	16	LW

Consensus (All Labs) Results										
Wk Mean	24.55	24.27	24.35	24.23	Month Mean	24.29		Grand Mean	24.38	
Avg SDr	1.88	1.78	2.13	1.91	Avg SDr	1.91		Avg SDr	1.93	
SD btwn Labs	1.42	1.33	1.23	1.22	SD btwn Labs	1.17		SD btwn Labs	0.87	
Labs Incd	40	37	39	38	SD btwn Wks	0.80		SD btwn Wks	0.85	
Labs Exclcd	0	0	0	0	Labs Incd	40		Labs Incd	38	
Labs not rcvd	0	3	1	2						

Instrument Code List as Reported by the Labs

(BK) - Buchel Strip Compression Tester BK-155

(LA) - L & W Autoline

(LU) - L & W 52 without moisture correction (was 53)

(LW) - L & W 53 with moisture correction (was 53M)

(LZ) - L & W (model not specified)

(TS) - TMI Monitor/STFI Compression Tester, 17-33

(XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
Analysis 224

STFI, 69 lb Linerboard - 69Y2
TAPPI Provisional Test Method T826



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
27A74X	34.0	36.2	33.9 L	33.7	34.4	-1.05	1.7	1.2	35.2	-0.51	1.7	1.2	12	LZ
3PMQDR	36.5	34.9	35.4	34.8	35.4	-0.45	2.7	0.8	35.7	-0.17	2.9	0.9	12	LW
4LG7QY	36.7	35.1	37.1 L	37.3	36.5	0.26	2.9	1.0	36.0	0.01	3.0	1.3	12	LU
78MMVR	36.1	35.7	34.4	34.2	35.1	-0.66	2.8	0.9	34.7	-0.82	2.9	0.7	12	LU
7VC4MW	39.0 L	36.5 L	38.5 L	38.7 L	38.2	1.26	0.0	1.1	53.4	11.11 X	0.0	16.3 H	8	LU
7XGNCH	38.1	37.2	37.0	36.0	37.1	0.58	2.5	0.9	37.6	1.03	2.2	1.0	12	LU
8979QL	39.4 L	40.3* L	37.9 L	36.8 L	38.6	1.55	0.3	1.6	39.1	1.99	0.3	1.4	12	TS
8JB7M3	36.1	35.1	34.5	34.3	35.0	-0.71	3.2	0.8	34.4	-1.03	3.1	1.3	12	LZ
9ZK7LX	36.2	38.8	39.8	35.9	37.7	0.95	4.3	1.9	38.5	1.58	3.8	1.6	12	LA
BMLC2Z	No Data	33.9	32.6	33.7	33.4	-1.70	2.8	0.7	32.8	-2.05*	2.6	0.9	11	XX
BR4TPG	37.3 L	No Data	35.3 L	36.5 L	36.3	0.12	0.0	1.0	37.7	1.06	1.7	2.5 H	11	LZ
BUZ9DZ	34.5 L	33.8 L	33.8 L	34.0 L	34.0	-1.32	0.6	0.3	34.4	-1.05	0.8	0.9	12	XX
C2KDE2	37.4	36.6	37.5	37.8	37.3	0.76	3.1	0.5	37.3	0.86	3.1	0.5	4	XX
DFZ8PW	34.0	32.1*	30.9*	31.2 X	32.0	-2.55*	2.4	1.4	32.6	-2.19*	2.4	1.1	12	LU
E2C7BV	35.1	34.0	35.2	34.9	34.8	-0.83	3.0	0.5	35.1	-0.60	3.3	0.8	12	LW
FJRYC6	35.5 L	36.4 L	35.2 L	35.1 L	35.6	-0.36	0.8	0.6	34.2	-1.17	0.9	1.5	12	LA
H9C6Q9	35.7 L	35.2 L	37.7 L	37.9 L	36.6	0.32	0.8	1.4	36.1	0.05	0.8	1.2	8	LA
J6EX64	34.1	35.7	34.5	36.6	35.2	-0.57	2.8	1.1	35.0	-0.66	2.5	1.1	12	LW
JKQFW4	34.6	35.1	35.6	34.7	35.0	-0.70	2.5	0.5	35.1	-0.58	2.2	1.1	12	LU
LJFH6D	35.7	35.3	36.6	35.5	35.8	-0.23	2.4	0.6	35.8	-0.11	2.3	0.8	12	LW
LJWJ6U	33.6 L	34.1 L	33.8 L	No Data	33.8	-1.44	0.8	0.3	34.5	-0.94	0.9	1.6	11	XX
MA7GZ4	36.5	37.1	36.5 L	36.5	36.6	0.32	1.9	0.3	36.5	0.29	1.9	0.3	12	LW
MN3D4H	29.3 X	No Data	No Data	No Data	29.3	-4.28 X	1.3	0.0 L	29.4	-4.23 X	1.9	1.0	9	LZ
NFNEZB	37.7	37.8	36.1	37.5	37.3	0.70	3.4	0.8	36.9	0.55	3.0	0.9	12	LW
T3JPAC	36.0	No Data	35.0	37.0	36.0	-0.08	3.2	1.0	36.2	0.13	2.9	0.9	11	LW
T3ZF3C	39.1	37.2	38.3 L	39.9*	38.6	1.56	2.0	1.1	38.6	1.69	2.0	1.1	4	XX
TG4D93	39.2	40.6*	39.0	37.1	39.0	1.78	3.0	1.5	37.5	0.93	3.1	1.6	12	LW
TGJ2PQ	33.4	34.8	35.5	35.1	34.7	-0.89	2.8	0.9	34.7	-0.82	2.7	0.8	12	XX
TMQ6EA	37.0	36.0	34.9 L	34.9	35.7	-0.27	1.7	1.0	35.9	-0.05	2.2	0.9	12	BK
TUMLRF	38.0	38.3	38.7	38.9	38.5	1.46	4.2	0.4	37.4	0.88	4.0	1.1	12	LW
X78QHF	38.6	37.3	37.8	38.1	37.9	1.12	2.8	0.5	38.0	1.26	2.8	1.1	12	XX
XCPVMV	37.9	37.0	36.0	35.6	36.6	0.30	2.6	1.0	36.6	0.38	2.7	0.6	12	LU
Y8BJCZ	36.0	34.3	36.1	36.9	35.8	-0.19	2.7	1.1	35.7	-0.22	2.6	1.0	12	LW
YBUG7H	34.6	35.5	34.5	35.7	35.0	-0.68	3.2	0.6	34.8	-0.76	2.7	0.7	12	LW



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
YFLQ94	37.3	36.9	36.9 L	36.2	36.8	0.43	1.9	0.5	35.8	-0.13	2.1	1.0	12	LU
YNAZ26	36.4	37.4	37.5	37.3	37.2	0.64	2.9	0.5	36.7	0.44	2.8	0.6	12	LU
YZFZAQ	35.8	35.8	36.2	36.4	36.0	-0.06	2.6	0.3	36.0	0.02	2.6	0.3	4	LW
Z2DHC6	35.3	34.2	35.5	35.0	35.0	-0.69	2.8	0.6	34.7	-0.83	2.6	0.6	11	LW
ZHUBLV	38.4	35.9	40.5 *H	38.2	38.3	1.32	8.5	1.9	38.4	1.52	8.0	1.6	12	LW

Consensus (All Labs) Results									
Wk Mean	36.40	36.06	36.10	36.24	Month Mean	36.13		Grand Mean	36.00
Avg SDr	2.63	2.60	3.59	2.58	Avg SDr	2.87		Avg SDr	2.82
SD btwn Labs	1.68	1.78	1.99	1.56	SD btwn Labs	1.60		SD btwn Labs	1.56
Labs Includ	37	36	38	36	SD btwn Wks	0.97		SD btwn Wks	1.13
Labs Exclud	1	0	0	1	Labs Includ	38		Labs Includ	37
Labs not rcvd	1	3	1	2					

Instrument Code List as Reported by the Labs

(BK) - Buchel Strip Compression Tester BK-155

(LA) - L & W Autoline

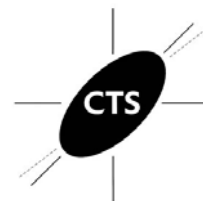
(LU) - L & W 52 without moisture correction (was 53)

(LW) - L & W 53 with moisture correction (was 53M)

(LZ) - L & W (model not specified)

(TS) - TMI Monitor/STFI Compression Tester, 17-33

(XX) - Instrument make/model not specified by lab



WebCode	Monthly Results			Cumulative Results				Inst
	Mean	CPV	SDr	Mean	CPV	SDr	Months	
3H2E3Q		No Data		140.0	1.05	16.7	3	
4GJK2G	114.6	-0.44	16.9	121.7	-0.06	17.7	4	LA
4ZR74B	245.4	8.69 X	18.4	216.0	5.64 X	21.8	4	EV
9E6ZDW	137.5	1.16	14.6	145.0	1.35	15.9	4	EV
9L882C	126.8	0.41	4.9	121.2	-0.09	11.2	3	XX
AP8U8D	119.5	-0.10	9.8	122.0	-0.04	10.9	3	EV
CD8ZVR	131.4	0.74	13.5	137.8	0.92	13.4	4	EV
CND24D	112.6	-0.57	19.4	106.3	-0.99	17.0	2	EV
DF6NNU	105.7	-1.06	8.4	105.4	-1.04	12.0	4	EV
G7KR8D	122.5	0.11	21.5	112.1	-0.64	13.4	4	EV
H6NAFV	148.0	1.89	13.9	150.5	1.68	17.0	4	EV
HKWB36	103.2	-1.23	9.4	123.9	0.08	12.6	2	EV
JEZYAR	123.1	0.16	14.4	121.9	-0.04	12.1	4	EV
JZYLVG	122.4	0.11	5.5	133.9	0.68	8.4	4	EV
LMUQ7D	133.6	0.89	2.6	130.5	0.47	3.0	4	EV
QB2XJX	124.5	0.25	15.7	116.7	-0.36	13.8	3	EV
QTFGDF	112.8	-0.56	15.5	115.1	-0.46	14.4	4	LA
RHVG97	140.8	1.39	14.9	138.8	0.97	13.3	4	EV
RQA86J	99.2	-1.51	10.0	104.5	-1.09	12.7	4	EV
TLHZC8	54.0	-4.67 X	2.4	82.8	-2.40*	18.8	4	EV
WEYM9J	97.1	-1.66	9.4	64.1	-3.53 X	7.0	3	EV

Consensus (All Labs) Results			
Month Mean	120.85	Grand Mean	122.63
Avg SDr	13.19	Avg SDr	13.83
SD btwn Labs	14.33	SD btwn Labs	16.56
Labs Incd	18	Labs Incd	19

Instrument Code List as Reported by the Labs

(XX) - Instrument make/model not specified by lab

(EV) - Emveco Microgage Model 210-R

(LA) - L & W Autoline

(XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
Analysis 231

Internal Bond, 42 lb Linerboard - 42X
TAPPI Provisional Test Method T569



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
7Q4V2M	119.6	1.31	11.8	117.9	1.23	10.9	3	HY
9G2K92	116.2	0.98	2.5	115.1	0.96	5.9	3	TM
AKFFUP	103.4	-0.27	7.0	104.9	-0.04	6.0	4	HY
CAT8BE	106.6	0.05	7.9	104.5	-0.08	6.4	3	TM
DDCG6C	105.6	-0.06	7.7	147.5	4.11 X	11.2	4	SC
E8F7BZ	84.8	-2.08 *	8.3	84.8	-2.00*	8.3	1	tm
KGLYA9	109.2	0.30	2.6	113.6	0.81	5.9	4	HZ
PKDAHU	115.6	0.92	10.8	115.7	1.01	8.4	3	SC
PRREDV	98.0	-0.79	2.5	102.7	-0.26	4.1	4	TM
WHBG4P	92.0	-1.38	5.1	88.9	-1.60	6.8	4	TM
WY7W8U	118.4	1.19	6.0	112.7	0.72	4.8	3	TM
XBYUUE	111.0	0.47	6.7	98.8	-0.64	5.4	4	TM
XTQLW8	108.4	0.22	4.7	108.8	0.34	4.1	4	HY
ZXARQX	97.1	-0.88	5.1	100.7	-0.45	7.1	4	SC

Consensus (All Labs) Results

Month Mean	106.13	Grand Mean	105.33
Avg SDr	6.91	Avg SDr	6.72
SD btwn Labs	10.27	SD btwn Labs	10.26
Labs Incd	14	Labs Incd	13

Instrument Code List as Reported by the Labs

(HY) - Huygen Digitized Scott Internal Bond Tester
(SC) - Scott Internal Bond Tester (Manual)

(HZ) - Huygen Internal Bond Tester with AccuPress
(TM) - TMI Monitor/Internal Bond Tester

Containerboard Interlaboratory Testing Program
 Analysis 234
COF Inclined Plane (Slide Angle), 42 lb Linerboard - 42X
 TAPPI Official Test Method T815

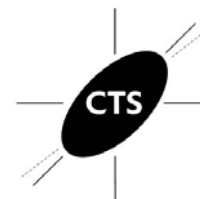


WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
6Z6YF4	24.3	-0.88	3.7	26.1	-0.51	4.5	3	ZZ
BZCWQ4	22.6	-1.25	4.4	23.0	-1.58	3.5	4	ZZ
D8P66V	29.4	0.25	2.2	25.7	-0.64	1.6	4	ZZ
DFFCNF	38.6	2.30 *	1.9	38.6	3.80X	3.0	4	ZZ
EW4XPL	25.8	-0.54	3.1	28.8	0.42	3.5	4	ZZ
GM9GDL	29.4	0.25	1.3	29.2	0.55	1.7	4	ZZ
GQ64QW	31.4	0.70	2.2	31.8	1.45	2.7	4	ZZ
GTRQE4	33.0	1.05	2.3	33.0	1.88	2.3	1	ZZ
HYHEVV	33.2	1.10	1.9	31.5	1.37	3.0	4	ZZ
KGNUMD	28.9	0.15	1.8	28.1	0.17	1.5	4	ZZ
KNB7XD	19.6	-1.92	0.5	21.7	-2.02*	2.7	3	ZZ
M6LA74	31.8	0.79	3.3	29.9	0.79	3.1	4	ZZ
NU6RHR	26.2	-0.46	4.6	26.2	-0.46	4.2	4	ZZ
R438XR	21.2	-1.56	3.0	25.2	-0.79	2.5	3	ZZ
U4NH3W	28.6	0.08	3.8	26.7	-0.30	3.0	3	ZZ
WK7VUT	27.8	-0.10	3.3	26.7	-0.28	3.4	3	ZZ
XG2PRT	28.2	-0.01	3.0	27.8	0.09	2.5	3	ZZ
Y3WQG2	29.7	0.32	2.8	28.0	0.17	3.1	4	ZZ
Z86RL4	27.1	-0.26	0.4	26.7	-0.31	0.4	4	ZZ

Consensus (All Labs) Results			
Month Mean	28.25	Grand Mean	27.54
Avg SDr	2.85	Avg SDr	2.90
SD btwn Labs	4.51	SD btwn Labs	2.91
Labs Incd	19	Labs Incd	18

Instrument Code List as Reported by the Labs

(ZZ) - Instruments No Longer Tracked



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
6PAP8M	14.7	-1.15	3.6	15.1	-1.00	3.1	4	XX
6ZU2GE	16.0	-0.56	2.4	14.8	-1.18	2.1	3	LA
8F8FE2	19.6	1.19	2.4	19.1	1.53	4.0	3	HG
9PFA9U	17.9	0.36	2.2	16.1	-0.35	2.3	4	HG
BWUYWL	17.4	0.12	1.4	19.2	1.60	1.4	4	LW
C8TR8X	19.6	1.18	4.8	18.8	1.36	4.4	4	XX
CCXR82	19.9	1.32	5.3	17.6	0.58	3.2	4	XX
DE7897	14.6	-1.21	2.3	15.7	-0.63	1.9	3	XX
ELWAMM	16.1	-0.50	3.0	16.1	-0.38	3.0	1	TN
H92X8E	14.0	-1.49	5.8	14.4	-1.43	4.3	4	TL
HULW93	16.5	-0.30	3.7	14.8	-1.19	2.5	4	XX
JCCMNT	18.9	0.84	2.3	17.6	0.56	2.2	4	LA
PCJ4PT	19.2	0.99	1.6	18.4	1.13	3.0	3	LW
RK2YJ9	20.0	1.34	5.2	17.3	0.38	4.1	4	LP
UMZ6N6	18.4	0.60	4.2	17.1	0.29	3.1	4	GA
UUWRRX	14.2	-1.38	1.5	14.7	-1.23	2.5	4	GS
YX97DK	15.8	-0.66	3.1	16.3	-0.22	2.8	3	XX
ZUANAW	15.7	-0.67	3.4	17.0	0.18	3.3	4	GG

Consensus (All Labs) Results

Month Mean	17.13	Grand Mean	16.67
Avg SDr	3.50	Avg SDr	3.07
SD btwn Labs	2.10	SD btwn Labs	1.57
Labs Incd	18	Labs Incd	18

Instrument Code List as Reported by the Labs

(GA) - Gurley Precision #4340 Automatic Densometer

(GS) - Gurley Hill S-P-S Tester #4190

(LA) - L & W Autoline

(LW) - L & W Gurley Densometer, Oil Flotation

(TN) - Teledyne Gurley S-P-S Tester #4190

(GG) - Gurley Precision #4320 Densometer

(HG) - Technidyne - Hagerty Model #1

(LP) - L & W Air Permeance Tester SE 166

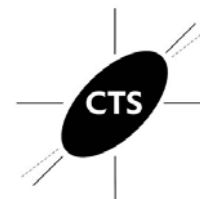
(TL) - Teledyne Gurley Densometer #4110, Oil Flotation

(XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
 Analysis 240
Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM71
 TAPPI Official Test Method T809



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
242DPP	60.6	61.1	61.9	62.1	61.4	-0.59	2.4	0.7	61.9	-0.55	2.1	0.9	16	EM
3ZLJN4	67.4	66.1	63.6	63.3	65.1	0.84	3.8	2.0	66.1	1.13	3.9	2.1	13	XX
47YEPK	61.6	61.5	61.9 H	61.8	61.7	-0.49	3.9	0.2 L	63.9	0.26	3.7	4.3 H	8	LC
4CTWFN	54.1 *	58.5	53.4 XH	58.1	56.0	-2.69 *	5.3	2.6	50.6	-5.09 X	4.5	9.2 H	10	LC
63JMGM	65.9	66.9	67.4	67.4	66.9	1.54	3.0	0.7	66.9	1.45	3.0	0.7	4	TM
69UWXW	63.4	62.5	62.2	No Data	62.7	-0.10	1.9	0.6	62.9	-0.16	2.6	1.9	15	LC
74LNCM	65.8	66.9	63.4	63.4	64.9	0.75	3.1	1.8	68.1	1.93	3.7	2.7	12	MB
7PA8MX	58.7	58.8	57.5	58.4	58.4	-1.79	3.7	0.6	60.0	-1.32	3.1	3.3	16	LC
7YAXTD	63.6	63.9	64.7	65.1	64.3	0.54	3.0	0.7	64.8	0.61	2.9	0.9	16	LD
8NGUX6	61.5	62.3	62.4	62.8	62.3	-0.27	2.4	0.5	62.3	-0.39	2.6	0.8	16	LD
9YXVC4	67.8	60.8	58.4	61.2	62.1	-0.35	3.5	4.0 H	62.1	-0.49	3.5	4.0 H	4	LD
AR46LE	67.8	70.4 *	68.9 *	67.3	68.6	2.20 *	4.1	1.4	69.3	2.41 *	3.9	1.0	16	LD
C2LJLM	63.6	65.2	67.1	63.2	64.8	0.71	4.2	1.8	62.0	-0.53	4.6	3.8 H	16	LC
CAXKYB	60.9	59.3 L	60.6	59.5	60.1	-1.12	1.8	0.8	59.9	-1.34	1.9	1.4	16	LC
D3L2WA	61.8	59.0	61.7	63.0	61.4	-0.62	3.7	1.7	61.3	-0.79	3.6	2.2	16	MB
DVY8NQ	68.8	66.3	64.5	65.7	66.3	1.32	3.1	1.8	65.0	0.69	2.7	2.0	16	LC
EJ2UKC	61.0	61.1	61.4	62.4	61.5	-0.58	3.8	0.6	62.4	-0.35	3.1	0.8	16	LC
FDW9R2	60.6	61.5	61.6	61.0	61.2	-0.69	2.5	0.5	61.2	-0.85	2.5	0.5	4	TD
GRJWEX	62.7	63.5	62.1	63.3 L	62.9	-0.02	2.2	0.6	62.6	-0.27	2.2	0.6	16	TA
JHAKFC	63.7	64.6	66.2	65.8	65.1	0.83	2.1	1.1	64.4	0.44	2.8	1.6	16	LZ
JJ64HD	57.4	57.5 *	57.9	62.1	58.7	-1.64	2.4	2.3	58.9	-1.77	2.9	1.6	16	LX
JXGJK9	55.4 *	64.9	65.1	66.3	62.9	-0.01	3.8	5.1 H	62.8	-0.17	3.5	2.6	16	LD
KAPC7F	70.8 *	73.1 X	71.8 X	No Data	71.9	3.48 X	3.3	1.1	67.0	1.48	4.8	6.2 H	11	LZ
KME6WB	67.5 H	69.1 *	58.9	59.9	63.9	0.35	4.5	5.2 H	65.6	0.92	3.9	6.5 H	16	LC
KXU2YU	58.0	60.6	58.5	58.5	58.9	-1.56	2.7	1.1	58.9	-1.74	2.7	1.1	4	TB
L6R6C6	61.3	62.7	60.7	59.7	61.1	-0.71	3.0	1.2	61.3	-0.78	3.1	1.0	16	LZ
L8M2FC	64.6	66.2	64.2	63.6	64.7	0.66	3.4	1.1	64.8	0.62	3.0	1.4	12	TM
LJ3WPA	66.5	64.2	65.8	67.5	66.0	1.18	2.6	1.4	64.6	0.54	2.7	1.4	16	XX
LZKWJL	65.6	67.2	65.5	66.1	66.1	1.22	2.4	0.8	66.3	1.20	3.3	1.1	16	EM
MLU8FV	62.2	62.7	61.4	61.6	62.0	-0.38	2.3	0.6	61.5	-0.70	2.6	0.9	15	LC
NFMYUK	63.2	61.7	62.7	63.0	62.7	-0.12	2.5	0.7	62.4	-0.35	2.6	0.8	16	LC
NPHEVG	58.8	60.4	59.2	59.9	59.6	-1.31	2.6	0.7	59.6	-1.48	2.6	0.7	4	LC
PK9B7T	66.3	63.6	64.1	62.6	64.1	0.46	2.3	1.6	63.6	0.12	2.8	1.2	16	LC
R3XEK7	60.9	63.0	61.8	62.4	62.0	-0.37	3.3	0.9	65.1	0.75	3.4	2.2	16	LC



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
RB72D8	63.2	66.5	68.9*	66.4	66.2	1.28	3.4	2.3	65.4	0.84	3.1	2.6	15	LZ
T2ZKZ8	66.2	59.6L	61.1	61.2	62.0	-0.36	2.2	2.9	59.7	-1.43	2.8	3.1	12	LC
TUPKFB	62.7	No Data	62.0	60.3	61.7	-0.49	2.9	1.2	62.0	-0.53	2.8	1.1	14	LD
V2ENR6	65.1	63.6H	64.6H	65.1	64.6	0.65	5.7	0.7	64.8	0.62	4.0	1.5	16	LC
V82FAJ	67.0H	63.1H	64.9	60.2H	63.8	0.33	7.8	2.9	63.8	0.21	7.8	2.9	4	LC
VLQ7FG	65.4	65.9	64.8	65.2	65.3	0.93	3.0	0.5	63.1	-0.06	2.9	2.0	16	LD
VTGY3M	65.2	65.5	66.0	69.9*	66.6	1.43	3.4	2.2	67.2	1.55	2.9	2.1	15	LC
VYURH7	62.5	63.0	63.1	62.3	62.7	-0.09	2.9	0.4	62.7	-0.24	2.6	0.9	16	LD
W6XL6R	66.2	65.7	64.5	66.1	65.6	1.04	3.2	0.8	66.4	1.25	2.8	1.1	8	EM
WHW697	62.0	65.2	64.0	64.8	64.0	0.40	3.5	1.4	63.6	0.11	3.3	1.2	16	LC
WKNZA7	63.2	64.3	65.1	63.6	64.1	0.43	3.0	0.8	63.6	0.11	3.0	1.0	16	LC
WQNHCC	62.0	62.2	62.5	62.3	62.3	-0.27	2.3	0.2L	62.0	-0.50	2.6	0.8	16	TB
YL2KGT	59.3	No Data	58.8	57.6	58.6	-1.71	3.1	0.9	58.6	-1.89	3.1	0.9	3	XX
YXJZ4T	63.4	61.3	62.4	63.2	62.6	-0.15	3.3	1.0	62.9	-0.16	3.3	1.0	16	LC
ZYDRHH	63.4	61.4	61.3	59.4	61.4	-0.62	2.7	1.6	62.3	-0.40	2.4	2.3	16	LC

Consensus (All Labs) Results

Wk Mean	63.19	63.28	62.92	62.89	Month Mean	62.95	Grand Mean	63.28
Avg SDr	3.33	3.46	3.04	3.54	Avg SDr	3.37	Avg SDr	3.28
SD btwn Labs	3.41	2.86	2.75	2.80	SD btwn Labs	2.57	SD btwn Labs	2.50
Labs Includ	49	46	47	47	SD btwn Wks	1.78	SD btwn Wks	2.28
Labs Exclud	0	1	2	0	Labs Includ	48	Labs Includ	48
Labs not rcvd	0	2	0	2				

Instrument Code List as Reported by the Labs

(EM) - Emerson 1200 Series

(LD) - L&W Crush Tester 248

(LZ) - L & W Crush Tester (model not specified)

(TA) - Thwing-Albert Model QC II-XDS

(TD) - TMI Digital Crush Tester, Model 17-09

(XX) - Instrument make/model not specified by lab

(LC) - L & W Crush Tester 48

(LX) - L & W 506

(MB) - Messmer Buchel K440

(TB) - TMI Monitor/Compression Tester, 17-70

(TM) - TMI/Hinde & Dauch



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
7TP6DY	68.8 L	69.2 L	69.5	66.7	68.6	-1.24	1.1	1.3	69.5	-1.17	1.1	2.4	16	XX
99277M	70.1	69.5	69.5	69.0	69.5	-0.99	2.9	0.5	69.2	-1.26	2.5	0.7	16	EM
AAP7F3	76.3	77.2	78.7	75.9	77.0	0.96	2.7	1.2	77.9	1.16	2.6	1.5	16	LZ
B7CET9	70.6	67.4	70.3	68.9	69.3	-1.05	2.0	1.4	69.7	-1.11	1.8	1.1	16	LD
BXTH2E	71.8	71.9	72.2	72.0	72.0	-0.35	2.3	0.2 L	71.9	-0.51	1.9	0.4	16	LC
D9KTJK	73.6	No Data	74.0	74.5 H	74.0	0.18	2.6	0.5	74.3	0.14	2.6	0.7	14	LD
EJYVTP	76.0	77.2	74.6	76.7	76.1	0.72	2.2	1.1	75.5	0.49	2.5	2.1	16	LC
EPXATL	70.3 H	68.1	71.7 H	73.0	70.8	-0.67	3.4	2.1	73.2	-0.16	2.8	4.5 H	16	LC
FEYQBJ	67.8	68.4	68.3	69.6	68.5	-1.25	2.8	0.7	69.8	-1.09	2.4	1.7	16	XX
PJXDVW	67.9 L	69.2 L	68.8	70.1	69.0	-1.12	1.5	0.9	69.3	-1.21	1.6	0.9	16	XX
PQWYNR	73.4	73.5	71.6	72.6	72.8	-0.14	2.6	0.9	73.0	-0.21	2.6	1.1	16	TD
QYCW9H	76.5	79.7	78.4	78.2	78.2	1.27	2.5	1.3	78.7	1.36	2.6	1.0	16	LD
VUTNDD	74.3	75.1	75.4	72.9	74.4	0.29	2.1	1.1	74.2	0.13	3.0	3.1 H	16	TB
WAH6RA	78.7	78.1	79.3	77.4	78.4	1.32	2.2	0.8	78.4	1.28	2.2	0.8	4	LC
WHRRMV	75.2	74.9	74.2	74.9	74.8	0.38	2.6	0.4	76.2	0.69	2.7	1.6	11	MB
WJMFYY	77.6	80.5	81.9	79.4	79.9	1.70	2.1	1.8	79.2	1.50	2.6	1.4	16	XX

Consensus (All Labs) Results

Wk Mean	73.06	73.33	73.64	73.23	Month Mean	73.33	Grand Mean	73.74
Avg SDr	2.51	2.64	2.17	2.28	Avg SDr	2.41	Avg SDr	2.39
SD btwn Labs	3.52	4.53	4.16	3.72	SD btwn Labs	3.84	SD btwn Labs	3.63
Labs Includ	16	15	16	16	SD btwn Wks	1.13	SD btwn Wks	1.86
Labs Exclud	0	0	0	0	Labs Includ	16	Labs Includ	16
Labs not rcvd	0	1	0	0				

Instrument Code List as Reported by the Labs

(EM) - Emerson 1200 Series

(LD) - L&W Crush Tester 248

(MB) - Messmer Buchel K440

(TD) - TMI Digital Crush Tester, Model 17-09

(LC) - L & W Crush Tester 48

(LZ) - L & W Crush Tester (model not specified)

(TB) - TMI Monitor/Compression Tester, 17-70

(XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
Analysis 255

Ring Crush (RCT), 26 lb Corrugating Medium - CM71
TAPPI Official Test Method T822



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
2MB99V	44.6	44.7	44.5	44.3	44.5	0.92	2.5	0.2 L	43.1	0.48	2.9	1.3	16	LC
63ZGWX	41.2	41.6	40.6	40.9	41.1	-0.89	3.3	0.4	40.9	-0.99	3.1	0.9	16	LD
8L9LVK	29.6 X	29.6 X	29.1 X	28.2 X	29.1	-7.20 X	2.1	0.7	29.1	-8.56 X	2.1	0.7	4	TM
9UCX2M	40.3	40.7	41.8	40.1	40.8	-1.07	1.9	0.8	41.1	-0.82	1.7	0.8	16	LC
CQ7ET7	41.5	42.8	41.9	43.9	42.5	-0.13	2.2	1.1	42.0	-0.24	1.9	1.1	16	LC
CTJGV3	42.1	43.4	44.5	43.8	43.5	0.37	2.1	1.0	42.2	-0.13	2.2	1.1	16	LC
DVVPGF	44.6	45.4	45.2	44.8	45.0	1.17	2.4	0.4	44.0	1.06	2.2	1.3	16	LZ
HHJTU8	41.6	41.0	41.2	39.5	40.8	-1.04	2.5	0.9	41.3	-0.74	2.0	0.8	16	TB
JMBCN	41.8	43.0	42.8	41.2	42.2	-0.30	2.7	0.8	41.6	-0.52	2.5	0.8	16	TB
KCEVRR	40.9	41.0	41.3	41.6	41.2	-0.83	2.4	0.3	40.5	-1.25	2.3	0.7	16	LD
LALXMD	45.4	35.9 X	37.7 *	43.0	40.5	-1.19	2.6	4.5 H	40.8	-1.03	2.3	3.6	16	LC
MJK7FP	42.4 L	43.0	44.4	42.0	42.9	0.09	2.3	1.1	42.9	0.35	2.3	1.1	4	LX
QYX4P7	41.3	43.1	43.1	42.1	42.4	-0.21	2.1	0.9	43.4	0.65	2.1	1.6	16	LC
T3U7UX	42.7	43.0 L	42.3	42.7	42.7	-0.05	1.7	0.3 L	41.4	-0.65	2.0	1.3	12	MB
T6QLJ3	49.7 X	47.5 *	44.4	47.7	47.3	2.40 *	3.0	2.2	45.5	2.03 *	2.8	6.5 H	16	LZ
UJ2R4Z	46.8 *	44.2	45.8	No Data	45.6	1.50	2.9	1.3	45.6	2.05 *	3.1	1.8	11	MZ
UP2A66	44.7	41.4	46.0	46.8	44.7	1.02	2.3	2.4	44.0	1.01	2.5	2.3	12	LC
UVVMAX	No Data	No Data	No Data	35.5 *	35.5	-3.86 X	1.8	0.0 L	35.5	-4.47 X	1.8	0.0 L	1	XX
W23LAV	41.9	39.8	39.7 L	39.6	40.3	-1.33	1.7	1.1	40.6	-1.16	1.8	1.1	16	EN
WNY287	45.0	42.9	41.8	No Data	43.3	0.25	2.4	1.6	42.2	-0.12	2.4	3.3	15	LC
WWWQW	42.6	43.7	42.1	42.6	42.7	-0.02	2.0	0.7	41.4	-0.63	2.0	1.1	16	TD
ZHBTUN	44.8	45.1	38.1	38.1	41.5	-0.66	2.0	4.0 H	43.4	0.65	2.0	3.4	8	LC

Consensus (All Labs) Results														
Wk Mean	42.97	43.02	42.45	42.11	Month Mean	42.77			Grand Mean	42.39				
Avg SDr	2.40	2.29	2.27	2.42	Avg SDr	2.38			Avg SDr	2.34				
SD btwn Labs	1.86	1.88	2.35	2.91	SD btwn Labs	1.90			SD btwn Labs	1.55				
Labs Includ	19	19	20	19	SD btwn Wks	1.72			SD btwn Wks	2.27				
Labs Exclud	2	2	1	1	Labs Includ	20			Labs Includ	20				
Labs not rcvd	1	1	1	2										



Instrument Code List as Reported by the Labs

(EN) - Emerson 2200 Series

(LD) - L&W Crush Tester 248

(LZ) - L & W Crush Tester (model not specified)

(MZ) - Messmer Buchel (model not specified)

(TD) - TMI Digital Crush Tester, Model 17-09

(XX) - Instrument make/model not specified by lab

(LC) - L & W Crush Tester 48

(LX) - L & W 506

(MB) - Messmer Buchel K440

(TB) - TMI Monitor/Compression Tester, 17-70

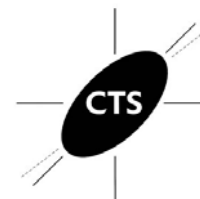
(TM) - TMI/Hinde & Dauch

Containerboard Interlaboratory Testing Program

Analysis 261

STFI, 26 lb Corrugating Medium - CM71

TAPPI Provisional Test Method T826



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
2N7RAX	13.8	14.3	14.0	14.9	14.2	-2.10*	1.1	0.5	14.0	-1.60	1.3	0.8 H	15	LW
6TYFT7	15.2	15.4	15.2	14.9	15.2	0.99	1.2	0.2	15.1	0.96	1.2	0.4	16	XX
87CMH3	15.1	15.3	15.0	14.9	15.1	0.60	1.1	0.2	14.8	0.28	1.2	0.4	16	XX
B7GZCV	14.8	15.7	15.6	15.3	15.3	1.42	1.2	0.4	15.3	1.36	1.2	0.4	4	XX
F49A3G	14.8	14.9	15.2	15.1	15.0	0.25	1.1	0.2	15.0	0.59	1.1	0.2	16	LU
GBVJZ7	14.1	14.6	14.3	16.0 X	14.7	-0.47	1.1	0.9 H	14.6	-0.32	1.0	0.5	16	LW
LK4KQM	15.5	14.6	14.4	14.6	14.8	-0.41	1.0	0.5	14.0	-1.67	1.1	0.9 H	16	LZ
T9Y2W7	14.7	14.7	14.6	15.0	14.8	-0.37	1.2	0.2	14.8	0.09	1.2	0.2	4	XX
V8GTMU	14.9	15.0	14.1	14.4	14.6	-0.90	1.1	0.4	14.6	-0.25	1.2	0.3	16	LU
V9GXA H	15.5	15.3	14.9	15.0	15.2	0.93	1.3	0.3	15.0	0.54	1.2	0.3	16	LW
ZQKJXR	15.6	14.4	14.3	15.4	14.9	0.05	1.4	0.7	20.6	13.23 X	1.7	4.3 H	12	LZ

Consensus (All Labs) Results

Wk Mean	14.90	14.92	14.69	14.93	Month Mean	14.88	Grand Mean	14.73
Avg SDr	1.10	1.23	1.07	1.24	Avg SDr	1.16	Avg SDr	1.18
SD btwn Labs	0.57	0.46	0.52	0.29	SD btwn Labs	0.31	SD btwn Labs	0.44
Labs Incl	11	11	11	10	SD btwn Wks	0.45	SD btwn Wks	0.48
Labs Excl	0	0	0	1	Labs Incl	11	Labs Incl	10
Labs not rcvd	0	0	0	0				

Instrument Code List as Reported by the Labs

(LU) - L & W 52 without moisture correction (was 53)

(LW) - L & W 53 with moisture correction (was 53M)

(LZ) - L & W (model not specified)

(XX) - Instrument make/model not specified by lab