



Collaborative Testing Services, Inc. Containerboard Interlaboratory Testing Program

Participant Summary Report #481 (L)- October 2009

[Introduction to the Containerboard Program](#)

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

[Instrument Manufacturer Contacts](#)

Analysis	Sample Lot	Analysis Name
<u>201</u>	<u>BOX3</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>207</u>	<u>36U3</u>	<u>Mullen Burst of Linerboard, 36 lb Linerboard</u>
<u>215</u>	<u>42X2</u>	<u>Ring Crush of Linerboard, Rigid Platen Type, 42 lb Linerboard</u>
<u>217</u>	<u>36U3</u>	<u>Ring Crush of Linerboard, Rigid Platen Type, 36 lb Linerboard</u>
<u>223</u>	<u>42X2</u>	<u>STFI of Linerboard, 42 lb Linerboard</u>
<u>225</u>	<u>36U3</u>	<u>STFI of Linerboard, 36 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.

For further information, contact:
Collaborative Testing Services, Inc
21331 Gentry Drive
Sterling, VA 20166 USA
Voice: 571-434-1925
Fax: 571-434-1937
containerboard@cts-interlab.com

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	July 2008 - October 2009 November 2009 -

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:

<u>Flag</u>	<u>Explanation</u>
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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.

Emerson Apparatus
Connie Upson
59 Sanford St., #12
Gorham Maine, ME 04038
Phone: (207) 856-0055, Ext. 24
FAX #: (207) 856-1117
connie@emersonapparatus.com

Lorentzen & Wettre USA Inc.
Bill Crain, Technical Manager
1055 Windward Ridge Pkwy
Suite 160
Alpharetta, GA 30202
Phone: (770) 442-8015
FAX #: (770) 442-6792

Testing Machines Inc.
2910 Expressway Drive South
Islandia, NY 11722
Phone: (631) 439-5400
FAX #: (631) 439-5420
info@testingmachines.com

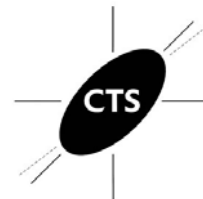
Containerboard Interlaboratory Testing Program
 Analysis 201
Top to Bottom Box Compression Strength, Corrugated Boxes - BOX3
 TAPPI Official Test Method T804



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
11P8MB	979.9	1.26	41.5	992.9	1.78	82.2	4	XX
2MWEJ9	864.1	-1.27	41.1	904.0	-0.49	64.7	4	LO
49NSPQ	935.3	0.28	28.8	888.7	-0.88	42.6	4	XX
592R75	912.0	-0.22	75.0	872.0	-1.31	113.3	4	LH
5LGLJY	885.7	-0.80	29.2	946.9	0.61	70.1	4	ER
635G7D	833.6	-1.94	24.5	901.8	-0.55	34.1	4	ES
6B8WDJ	899.8	-0.49	20.2	868.0	-1.41	49.9	4	LG
6ZARXL	952.2	0.65	50.1	934.3	0.28	46.3	4	RP
72T2CC	922.0	-0.01	87.7	955.1	0.82	55.5	4	ER
7978AM	952.0	0.65	59.4	948.9	0.66	56.1	4	LG
7N92F4	957.4	0.77	25.7	944.7	0.55	58.5	4	LL
9QXHWG	975.2	1.16	19.0	928.1	0.13	33.1	4	TC
9VARV1	888.6	-0.74	50.0	902.3	-0.54	79.3	4	EX
ARE9HY	943.4	0.46	70.3	923.3	0.00	64.6	4	LG
EJEY3X	925.6	0.07	39.8	931.6	0.21	65.7	4	TP
G84DK1	815.5	-2.33 *	13.0	857.0	-1.69	61.4	4	LO
GDHNUP	965.2	0.94	74.1	908.7	-0.37	57.5	4	LL
GVUS69	962.5	0.88	29.2	944.1	0.54	64.1	4	LN
HVRQSP	943.9	0.47	65.2	922.1	-0.03	63.8	4	LH
LLH595	886.8	-0.77	57.1	885.8	-0.96	105.3	4	TS
QAMAGR	978.2	1.22	27.8	858.1	-1.66	24.2	3	XX
QNVLX6	1,009.1	1.90	72.0	1,003.9	2.07 *	58.9	4	LM
U68CPK	881.2	-0.90	37.1	968.4	1.16	49.4	4	XX
UB5N9K	902.0	-0.44	22.7	902.8	-0.52	29.0	4	XX
V3CVAH	897.9	-0.53	55.8	900.5	-0.58	50.4	4	TB
V8BLEF	904.1	-0.40	22.1	968.5	1.16	40.7	4	TR
XQDMYT	927.4	0.11	61.9	963.3	1.03	65.2	4	MC

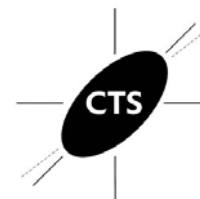
Consensus (All Labs) Results			
Month Mean	922.24	Grand Mean	923.17
Avg SDr	49.01	Avg SDr	62.06
SD btwn Labs	45.74	SD btwn Labs	39.08
Labs Incd	27	Labs Incd	27

Containerboard Interlaboratory Testing Program
Analysis 201
Top to Bottom Box Compression Strength, Corrugated Boxes - BOX3
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 | (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
22T69Y	39.0	-0.06	1.5	39.4	0.00	1.0	4	TC
2MWZ7G	41.4	0.59	1.3	40.6	0.33	1.7	4	LC
EZJHE2	34.0	-1.46	2.3	32.8	-1.84	1.9	4	WK
GMJQK8	39.2	-0.01	2.7	39.3	-0.02	2.4	4	EN
J6GNX7	36.8	-0.68	2.0	36.8	-0.73	2.0	1	LX
TEG3HC	45.0	1.60	1.7	45.0	1.56	1.7	1	LC
U3EA2X	42.4	0.87	3.4	42.1	0.74	3.0	4	TD
XQAQ52	36.2	-0.85	3.4	39.3	-0.04	3.3	4	LC

Consensus (All Labs) Results			
Month Mean	39.24	Grand Mean	39.41
Avg SDr	2.41	Avg SDr	2.25
SD btwn Labs	3.59	SD btwn Labs	3.58
Labs Incd	8	Labs Incd	8

Instrument Code List as Reported by the Labs

(EN) - Emerson 2200

(LX) - L&W 506

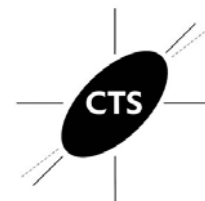
(TD) - TMI Digital Crush Tester, Model 17-09

(LC) - L&W Crush Tester 48

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

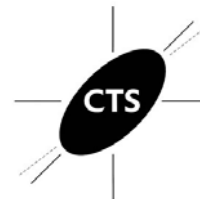
(WK) - Zwick Z005 Crush Tester

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	
118W46	42.3	0.13	2.1	42.2	0.09	3.8	4	TC
1R2AV6	40.5	-0.53	0.8	41.7	-0.07	1.3	4	TC
349K34	45.9	1.51	1.9	44.8	1.07	1.6	4	LZ
3KD2R6	44.0	0.80	1.5	42.7	0.31	1.4	4	TC
3LMMNZ	41.0	-0.32	2.5	38.7	-1.21	2.0	4	LC
44UGBX	42.5	0.22	1.2	41.4	-0.18	1.8	4	TC
4QC2BS	42.2	0.13	2.7	44.9	1.12	1.9	4	TD
5KRR8U	43.5	0.60	0.7	42.7	0.29	2.3	4	LC
7JQFQW	39.4	-0.93	1.6	40.8	-0.44	3.5	4	LX
956JSZ	41.7	-0.09	4.5	43.1	0.43	3.4	4	EM
AJBP3B	41.8	-0.04	1.4	41.6	-0.10	1.6	4	LD
BUPW7V	39.6	-0.88	1.5	40.2	-0.65	2.6	4	TA
D4ZNBB	42.9	0.36	1.6	42.7	0.28	1.6	4	EN
DJMQFN	40.3	-0.58	2.1	41.7	-0.09	2.5	4	LC
DWS968	41.5	-0.17	1.8	41.4	-0.19	1.4	4	LX
EYMZKS	43.3	0.53	1.9	43.8	0.69	1.7	4	TD
FJ52WJ	41.5	-0.14	3.9	42.8	0.32	2.4	4	LC
FJSWQU	40.4	-0.56	1.3	40.9	-0.36	1.3	4	EM
GR9MVM	46.8	1.84	1.5	45.7	1.41	1.9	2	LC
GSAW9H	43.6	0.64	1.4	43.7	0.65	2.1	4	LC
H3GSLE	35.5	-2.39 *	2.5	36.4	-2.04*	2.5	4	TK
HUFQVU	47.6	2.12 *	2.8	47.9	2.24*	2.5	4	LC
LE9RJT	37.0	-1.82	1.1	36.8	-1.89	1.0	4	XX
M56RS7	40.3	-0.60	2.2	40.5	-0.52	1.9	4	EM
MLJRMG	44.8	1.07	2.1	43.5	0.57	2.7	4	TM
P16RQM	40.6	-0.47	2.0	41.4	-0.20	1.6	4	XX
RSZHMK	41.1	-0.30	5.1	40.0	-0.71	3.2	4	EM
SBMB5T	39.5	-0.90	4.0	40.3	-0.59	2.8	4	EN
TQ7SN4	48.1	2.32 *	1.2	47.8	2.18*	1.5	4	EM
VP4762	38.3	-1.34	1.2	35.3	-2.47*	1.2	4	CT
W9KV36	41.8	-0.02	0.9	41.9	-0.03	1.7	4	TL
WEZEEM	43.0	0.40	1.8	43.5	0.58	1.6	4	LC
X4WX79	42.0	0.04	1.5	40.6	-0.50	2.1	4	EN
Y27BKL	41.3	-0.21	2.2	41.2	-0.29	1.8	4	TB
ZB6JDX	40.8	-0.41	1.3	42.7	0.29	1.2	4	TC

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



Consensus (All Labs) Results

Month Mean	41.89	Grand Mean	41.92
Avg SDr	2.23	Avg SDr	2.15
SD btwn Labs	2.68	SD btwn Labs	2.69
Labs Incd	35	Labs Incd	35

Instrument Code List as Reported by the Labs

(CT) - Con-Ten	(EM) - Emerson 1200 Series
(EN) - Emerson 2200	(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	

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					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
18C39E	108.2	111.7	113.4	104.7	109.5	0.92	9.9	3.9	109.1	0.88	10.4	4.2	16	LA
24YUR9	107.3	106.4 L	107.1	107.7	107.1	0.29	5.7	0.5 L	108.2	0.61	5.2	1.6	15	XX
2K8N8B	109.0	105.7	107.8	107.5	107.5	0.39	9.3	1.4	109.9	1.10	10.4	3.1	14	AA
31V2M3	104.8	105.5	108.0	103.3	105.4	-0.18	10.4	2.0	105.8	-0.08	10.7	2.6	16	TB
35HK18	115.8	115.9	118.1*	127.0 X	119.2	3.55 X	10.8	5.3	113.8	2.25*	11.0	5.5	16	LA
36H2EB	104.0	94.8*	100.7	95.8*	98.8	-1.96	8.9	4.3	101.4	-1.37	9.7	5.2	12	LP
38RQZD	105.5	105.5	116.7*	108.5	109.1	0.81	7.4	5.3	110.2	1.21	9.1	4.4	15	LC
4DMMQH	108.5	101.6	105.9	No Data	105.3	-0.20	12.2	3.5	106.6	0.16	11.1	4.6	15	TB
4LB65K	107.2	106.9	106.1	105.3	106.4	0.08	8.0	0.8	107.4	0.38	9.1	2.6	14	LZ
5F1GB3	106.7	104.4	106.0	105.5	105.7	-0.11	9.0	1.0	105.6	-0.16	8.3	1.8	16	TX
61DM4G	106.0	106.3	107.0	110.3	107.4	0.36	9.4	2.0	107.5	0.42	9.5	2.3	14	LZ
6KB222	109.1	112.6	102.5	106.7	107.7	0.45	11.1	4.3	105.4	-0.19	9.2	3.3	16	AX
6KFJ7S	101.0	98.5	100.2	98.6	99.6	-1.76	7.1	1.2	102.2	-1.13	7.6	3.4	16	AH
6VJ6J5	98.2	106.1	112.2	109.2	106.4	0.10	9.0	6.0	106.3	0.07	10.8	3.8	16	LZ
853R5K	105.4	105.6	108.0	101.3	105.1	-0.27	10.9	2.8	106.0	-0.02	10.7	3.6	16	AH
8EWR2Q	109.6	102.3	106.2	110.0	107.0	0.26	11.8	3.6	105.3	-0.25	11.7	4.5	16	XX
8ZRYJZ	100.9	101.9	103.9	109.1	104.0	-0.58	11.4	3.7	103.4	-0.79	12.1	2.9	16	LC
9RW2MP	116.8*	113.7	112.8	112.1	113.8	2.10*	10.6	2.1	111.4	1.55	12.0	5.5	16	TB
A2M9CC	102.9	105.7	100.7	100.6	102.5	-0.98	6.7	2.4	101.7	-1.28	9.4	2.3	16	LJ
AH38S4	101.8	113.8	101.4	102.6 H	104.9	-0.32	12.8	6.0	102.7	-1.01	10.9	4.4	12	AH
B2GGQP	109.3	112.6	108.3	108.5	109.7	0.97	9.4	2.0	110.0	1.13	10.2	3.3	16	LZ
B59K94	108.9	105.4	No Data	107.4	107.2	0.31	11.7	1.8	105.2	-0.26	10.8	5.0	14	TB
BS1X17	107.6	110.2	106.6	No Data	108.1	0.56	12.3	1.9	106.9	0.23	10.7	3.0	15	XX
DAFCLK	No Data	No Data	108.0	106.2	107.1	0.28	10.5	1.3	106.3	0.05	10.5	3.7	14	LA
DLA2ET	106.3	109.3	111.3	108.0	108.7	0.71	10.2	2.1	109.6	1.03	10.1	3.1	16	AA
DUE8ZV	104.1	110.1	101.9	108.2	106.1	0.00	9.8	3.7	103.7	-0.70	8.1	3.1	16	LC
FCHBAP	110.9	109.5	112.1	107.4	110.0	1.05	9.0	2.0	112.1	1.76	9.6	2.7	16	TB
FWU1NM	108.5	109.3	108.8	104.3	107.7	0.45	9.3	2.3	110.0	1.16	10.0	3.2	14	LC
GTKX1J	113.3	117.7*	107.9	112.9	113.0	1.86	10.5	4.0	107.9	0.53	11.2	4.6	16	TX
GZXHU2	110.0	109.9	110.7	No Data	110.2	1.12	12.3	0.4 L	109.2	0.90	11.0	4.1	15	LA
HW48NE	101.8	100.2	101.7	101.3	101.3	-1.31	6.0	0.7	101.4	-1.37	5.8	0.5 L	12	LZ
L95ED1	90.0 X	99.7	99.1	96.2	96.3	-2.66*	8.2	4.4	97.5	-2.52*	8.6	3.5	16	LA
LCLEKN	96.8	99.5	102.4	102.9	100.4	-1.54	10.4	2.8	103.8	-0.67	10.7	3.3	16	LC
LJ5D2V	110.5	103.9	109.9	110.4	108.7	0.71	11.2	3.2	106.6	0.15	10.6	3.5	16	LA

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
MG52C6	101.2	104.1	94.4*	97.7	99.4	-1.82	9.0	4.2	102.8	-0.97	6.3	3.2	16	TC
MV1Y1S	98.0	104.8	104.7	106.8	103.6	-0.68	11.5	3.8	105.7	-0.12	10.4	4.8	16	AH
NN4XL5	103.4	116.7*	104.7	114.8	109.9	1.03	11.1	6.8	106.9	0.24	10.5	3.7	16	LA
PWUEKS	No Data	109.0	105.6	105.7	106.8	0.18	10.5	2.0	104.5	-0.48	10.3	2.5	11	TB
QHT8SN	120.3*	104.9	106.8	102.7	108.7	0.71	10.7	7.9 H	107.0	0.27	10.1	4.8	16	LA
R1Q4RW	117.7*	108.2	103.0	109.1 L	109.5	0.93	7.4	6.1	112.1	1.77	8.8	5.4	16	LA
RHWVLS	107.6	109.3	108.4	109.2	108.6	0.69	8.1	0.8	106.5	0.13	7.6	2.7	16	TB
SE7JMM	99.9	103.7	101.2	99.7	101.1	-1.34	12.4	1.9	101.6	-1.32	8.9	1.1	16	AH
U5N9NS	107.2	108.4	110.7	108.3	108.7	0.70	11.0	1.5	108.1	0.59	10.5	3.2	16	LJ
U8SDJ6	100.0	98.2	107.2	97.2	100.7	-1.47	11.1	4.5	100.0	-1.79	9.6	2.8	16	AH
UVYQ16	107.9	110.3	108.5 L	109.6 L	109.1	0.81	5.0	1.1	109.8	1.08	5.5	3.2	16	AX
V2S51K	106.0	105.2	103.9	103.9	104.8	-0.36	8.6	1.0	104.5	-0.48	9.4	2.2	16	LB
VAG2GS	104.5	111.7	101.7	103.7	105.4	-0.18	12.6	4.4	105.6	-0.14	12.2	3.6	16	LC
WHSTD3	96.4	101.7	105.5	97.5	100.3	-1.57	9.5	4.2	99.9	-1.83	9.7	3.9	16	LA
WKJMGY	111.0	106.8	108.8	109.2	109.0	0.78	11.8	1.7	107.6	0.43	9.9	3.7	16	AH
WWFG29	110.1	102.1	107.0	108.1	106.8	0.20	10.0	3.4	107.4	0.37	9.9	3.2	16	LA
XPVUH4	100.7	103.0	108.0	96.4	102.0	-1.10	9.5	4.8	101.8	-1.26	10.2	3.5	16	LA
XRP76M	105.0	105.3	101.5	No Data	103.9	-0.58	10.1	2.1	102.8	-0.96	9.3	3.2	15	LA
YZJZLE	107.2	105.0	112.0	109.5	108.4	0.64	9.3	3.0	107.6	0.45	8.8	3.1	16	AH
ZXW28N	104.9	109.3	108.8	109.1	108.0	0.53	9.2	2.1	106.9	0.23	9.7	3.7	16	AH

Consensus (All Labs) Results														
Wk Mean	106.38	106.59	106.52	105.53	Month Mean	106.07		Grand Mean	106.09					
Avg SDr	10.00	10.18	9.90	9.80	Avg SDr	9.99		Avg SDr	9.83					
SD btwn Labs	5.16	4.84	4.49	4.71	SD btwn Labs	3.69		SD btwn Labs	3.41					
Labs Includ	51	53	53	49	SD btwn Wks	3.42		SD btwn Wks	3.59					
Labs Exclud	1	0	0	1	Labs Includ	53		Labs Includ	54					
Labs not rcvd	2	1	1	4										

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



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 | (LP) - L & W Bursting Strength Tester P-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 207

Bursting Strength (Mullen), 36 lb Linerboard - 36U3
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	
158C1E	86.2	81.8	89.7	84.4	85.5	-1.55	8.8	3.3	87.7	-1.09	10.2	3.9	12	AH
3BRG26	87.9	83.6	84.8	87.1	85.8	-1.46	8.1	2.0	86.8	-1.35	9.7	2.8	12	LC
3HKB96	91.1	89.8	90.0 L	88.5	89.9	-0.38	8.2	1.1	89.2	-0.63	7.2	2.6	12	LC
46736J	88.8	92.4	90.2	No Data	90.5	-0.22	10.8	1.8	90.0	-0.37	9.2	2.9	11	TB
4Q3E65	82.5 L	80.2*	85.7	82.3*	82.7	-2.32*	6.9	2.3	83.9	-2.26*	9.3	5.1 H	12	LP
5M1D27	92.4 L	98.0	94.1	94.3	94.7	0.92	6.2	2.3	94.2	0.90	6.9	2.2	11	LC
5PW9S9	86.6	87.0	89.2	93.6	89.1	-0.59	10.3	3.2	92.1	0.25	9.7	4.0	12	AH
6EKW9X	88.4	95.6	88.2	92.9	91.3	0.00	11.3	3.6	92.7	0.45	12.2	3.2	10	LC
6VN4V7	93.2	95.6	96.4	89.2	93.6	0.62	10.9	3.2	94.5	1.02	10.4	2.8	12	AH
981JFF	91.8	97.9	91.2	94.0	93.7	0.66	8.7	3.0	94.1	0.88	8.4	2.5	12	LZ
AQY3XP	100.6	96.2	100.3*	95.7	98.2	1.86	10.1	2.6	93.0	0.55	9.4	4.5	12	LA
ARX9CN	No Data	No Data	90.2	90.1	90.1	-0.31	11.7	0.1 L	91.2	-0.02	9.8	1.9	10	LA
B1ZRL5	90.7	87.1	91.5	88.5	89.5	-0.49	10.0	2.0	89.5	-0.52	9.9	2.5	12	LA
B2Z8Z9	91.0	91.7	90.5	92.5	91.4	0.04	7.6	0.9	91.0	-0.08	6.2	1.4	12	AH
B7YHLM	97.0	96.0	94.1	94.6	95.4	1.11	10.1	1.3	97.4	1.89	10.3	4.0	11	TB
BD2JT4	87.1	92.7	93.2	93.9	91.7	0.12	9.9	3.1	90.6	-0.18	12.1	2.3	12	LC
BDUE35	88.6	91.5	90.2	No Data	90.1	-0.32	6.3	1.5	90.3	-0.29	7.6	2.7	11	LA
BM9QFD	92.4	89.7	86.8	No Data	89.6	-0.44	11.2	2.8	90.6	-0.18	10.2	2.4	10	LA
EBM45K	81.0*	84.2	90.1	87.4	85.7	-1.50	7.8	3.9	86.4	-1.50	9.8	3.1	12	LA
GA83QQ	95.6	91.3	95.4	96.9	94.8	0.95	8.5	2.4	94.6	1.02	8.3	2.2	12	LA
GQ6VAB	88.6	83.9	85.2	84.2	85.5	-1.55	7.7	2.2	85.2	-1.86	8.5	1.7	12	LA
GWXAQS	96.0	95.5	94.5	89.3	93.8	0.68	9.7	3.1	93.1	0.57	9.6	2.4	12	AA
HBUBVH	102.3*	97.4	99.2	93.9	98.2	1.86	11.0	3.5	93.2	0.61	10.1	4.2	12	TX
HW4P2H	94.3	95.0	94.1	94.1	94.4	0.83	9.5	0.4 L	94.5	1.00	9.4	1.8	12	LZ
HX54M3	92.3	93.1	90.6	93.4	92.4	0.29	10.0	1.3	91.6	0.13	9.6	2.5	12	LJ
JR66Z6	94.4	94.5	92.4	94.6	94.0	0.72	8.9	1.1	94.2	0.91	8.1	2.4	12	LZ
K2YQN5	91.7	87.9	93.2	No Data	90.9	-0.09	10.6	2.7	89.8	-0.45	9.5	2.8	10	LA
K68B99	86.6	88.9	84.9	89.3	87.4	-1.04	9.6	2.1	87.8	-1.05	9.9	2.5	12	LJ
KGB1CC	99.0	97.9	94.5	95.7	96.8	1.48	6.6	2.0	97.8	2.00*	6.1	3.0	12	AX
KPY99V	87.7	87.4	90.0	87.8	88.2	-0.83	8.8	1.2	88.1	-0.97	9.5	2.0	12	LB
LN264R	90.6	88.6	91.1 L	91.7	90.5	-0.21	4.6	1.3	90.9	-0.09	5.1	1.4	12	XX
LXK3VL	92.1	93.7	99.5*	97.8	95.7	1.20	11.3	3.5	94.5	1.00	10.4	3.4	12	LA
MNNQZQ	93.7	92.8	92.3	92.6	92.8	0.41	7.7	0.6	92.7	0.45	9.2	1.8	12	TB
NEW5NV	96.3	90.8	90.8	85.7	90.9	-0.10	11.0	4.3	89.8	-0.45	9.8	3.6	12	LC

Containerboard Interlaboratory Testing Program
Analysis 207

Bursting Strength (Mullen), 36 lb Linerboard - 36U3
TAPPI Official Test Method T807

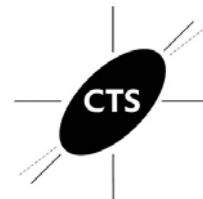


WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
NFE4T6	95.5	92.7	98.6	96.3	95.8	1.21	9.4	2.4	95.6	1.33	9.6	3.2	12	LA
NHKG2M	92.0	89.1	88.6	90.9	90.2	-0.30	10.4	1.6	92.0	0.24	10.4	2.7	12	AH
NJH3JK	96.8	93.4	92.1	91.7	93.5	0.60	10.6	2.3	90.0	-0.37	8.8	3.6	12	AX
NWCXXM	97.2	96.4	96.8	91.9	95.6	1.15	9.2	2.5	96.5	1.62	9.2	2.3	11	AA
NWKWN2	85.8 L	86.8	86.3	85.1	86.0	-1.42	5.1	0.7	85.1	-1.88	5.9	2.4	12	TB
PH9V6R	93.2	93.0	96.7	92.0	93.7	0.66	10.2	2.1	95.0	1.15	9.4	2.3	12	AH
QVH7JQ	91.8	92.1	93.5	94.3	92.9	0.44	9.7	1.2	92.9	0.50	9.2	2.1	12	LA
QWEQEZ	87.4 L	85.7	87.9	85.4	86.6	-1.26	6.8	1.2	88.3	-0.89	5.3	2.8	12	TC
R6NF8F	107.0 X	91.9	92.3	91.4	95.7	1.18	10.4	7.6 H	92.5	0.38	10.0	5.7 H	12	LZ
R9H66M	91.0	94.2	97.7 H	90.8 H	93.4	0.58	14.1	3.2	93.6	0.72	11.2	2.9	11	LA
R9ZEX3	92.7	90.7	91.4	91.2	91.5	0.06	6.2	0.9	91.3	0.01	6.1	0.9	8	LZ
RVKR4C	89.0	81.5 *	90.2	79.2 X	85.0	-1.69	7.3	5.4	88.0	-0.99	6.6	4.5	12	AH
SA724E	84.5	85.2	92.7	90.8	88.3	-0.80	9.3	4.1	88.8	-0.75	9.2	3.4	12	LA
SE6CZE	88.6	84.0	86.2	85.8	86.2	-1.38	8.6	1.9	85.4	-1.80	9.1	2.0	12	AH
U8GBAD	92.1	93.6	92.4	90.2	92.1	0.21	10.1	1.4	91.5	0.08	8.4	2.0	12	TX
VSPDRB	103.3 *	95.2	95.6	98.8 *	98.2	1.86	8.8	3.7	96.9	1.75	9.1	3.0	12	TB
WJ26XK	No Data	87.9	86.2	90.8	88.3	-0.80	8.3	2.3	89.6	-0.51	10.1	6.4 H	11	TB
WL5W6L	No Data	89.6	88.4	88.8	88.9	-0.63	11.5	0.6	90.1	-0.34	10.0	2.8	9	TB
YXR4LZ	85.9 H	93.6	93.3	91.7	91.1	-0.04	12.5	3.6	88.5	-0.83	12.2	3.6	12	XX
ZPLZMM	89.8	93.1	89.9	93.1	91.5	0.05	10.1	1.9	92.2	0.29	9.8	2.0	12	AH

Consensus (All Labs) Results											
Wk Mean	91.50	90.93	91.68	91.16	Month Mean	91.28				Grand Mean	91.23
Avg SDr	9.70	9.54	9.25	9.02	Avg SDr	9.42				Avg SDr	9.24
SD btwn Labs	4.72	4.58	3.87	3.76	SD btwn Labs	3.72				SD btwn Labs	3.25
Labs Includ	50	53	54	49	SD btwn Wks	2.69				SD btwn Wks	3.06
Labs Exclud	1	0	0	1	Labs Includ	54				Labs Includ	54
Labs not rcvd	3	1	0	4							

Containerboard Interlaboratory Testing Program
Analysis 207

Bursting Strength (Mullen), 36 lb Linerboard - 36U3
TAPPI Official Test Method T807



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

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

(TC) - TMI Monitor/Burst (Model 13-71)

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

(AH) - Perkins Model AH

(LA) - L & W Bursting Strength Tester

(LC) - L & W Autoline

(LP) - L & W Bursting Strength Tester P-Type

(TB) - TMI Monitor/Burst 1000

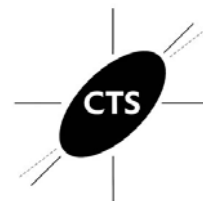
(TX) - TMI Monitor/Burst (model not specified)



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	
268QLE	92.3	95.8	93.4	93.8	93.8	0.25	4.4	1.5	93.5	0.36	4.0	1.4	16	LC
276W1D	102.0	99.0	94.3	92.0	96.8	0.91	3.6	4.5 H	97.5	1.34	4.4	2.8	16	TC
2HD2J1	98.4	97.5 L	98.1	99.5	98.4	1.25	3.6	0.8	96.4	1.08	3.2	1.8	16	LC
2LQMXU	89.3	97.2	98.7	96.0	95.3	0.57	3.4	4.1	93.4	0.32	3.8	3.7	16	MB
38PN1F	92.6	95.7	93.3	96.5	94.5	0.40	4.2	1.9	92.9	0.21	4.1	2.8	16	LC
47ZFQK	93.0	90.9	90.7	88.6	90.8	-0.42	4.8	1.8	89.1	-0.73	3.9	2.1	16	TD
5C9RP6	89.8	92.6	86.0	88.2 L	89.2	-0.78	3.0	2.8	88.9	-0.78	3.3	1.6	16	EM
5PS753	91.7	90.7	93.8	93.4	92.4	-0.07	3.5	1.5	93.0	0.23	3.9	2.2	16	EM
61L3K9	88.8	90.1 H	92.1	No Data	90.3	-0.52	6.6	1.7	90.0	-0.51	5.3	2.4	15	LC
669ZF7	87.8	87.9	86.2	91.5	88.4	-0.96	3.2	2.2	92.6	0.14	3.9	3.6	15	XX
7RJDQY	84.0 L	85.1	90.7 L	82.2	85.5	-1.59	2.3	3.6	86.6	-1.35	3.3	2.0	16	LD
7UCFCL	99.5	97.3	99.7	103.6 *	100.0	1.62	4.8	2.6	97.8	1.41	4.3	2.8	16	MB
7X93VN	91.6	87.6	90.9	92.9	90.7	-0.44	4.2	2.3	91.4	-0.17	4.6	2.4	16	LC
A2JS8M	95.9	90.4	94.1	92.7	93.3	0.13	4.1	2.3	92.4	0.09	3.5	1.8	16	LC
AF5KY2	91.0	88.7	88.8	91.8	90.1	-0.58	4.4	1.6	87.9	-1.02	4.3	2.2	16	TX
ALZANL	91.2	92.3 L	90.8	90.9	91.3	-0.31	2.4	0.7	93.0	0.23	3.6	2.0	16	TD
B2BGWV	97.9	96.2	95.2	97.8 L	96.8	0.90	2.9	1.3	96.2	1.03	3.1	1.4	16	LD
B6EAXL	101.4	95.7	99.6	99.1	99.0	1.38	3.9	2.4	96.8	1.18	4.2	2.4	16	LD
BFQVT9	95.2	97.4	97.2	95.5 L	96.3	0.80	2.6	1.2	92.6	0.13	2.4	2.5	16	EM
BTK726	103.0 *	103.6 *	103.8 *	100.7	102.8	2.22 *	4.6	1.4	101.5	2.32 *	4.2	1.5	16	LD
BTYJXQ	84.6	83.6	82.9 *	84.9	84.0	-1.92	3.6	0.9	85.5	-1.63	4.4	1.7	16	LZ
BXC871	60.2 X	62.3 X	89.4 H	82.9 H	73.7	-4.20 X	8.3	14.6 H	76.0	-3.96 X	8.3	9.7 H	13	IM
D5BQDV	89.2 L	90.6	No Data	91.0	90.3	-0.54	2.4	1.0	89.5	-0.63	2.5	1.4	15	TC
E7S1ME	90.0	89.9	89.4	90.4	89.9	-0.61	5.7	0.4	90.2	-0.46	5.5	1.0	12	LC
EG2NF1	97.4	98.6	104.9 *	102.8	100.9	1.81	4.0	3.5	99.8	1.91	4.2	2.4	16	LC
F7C5QY	80.2 *L	83.9 L	79.6 XL	81.6 *L	81.3	-2.51 *	1.8	1.9	86.2	-1.45	1.7	3.2	16	XX
FNL136	88.5	89.1	93.5	93.0	91.0	-0.37	3.8	2.6	90.0	-0.51	3.6	1.9	16	EN
GJA5F9	91.3	94.8 H	91.5	No Data	92.5	-0.04	5.1	2.0	94.5	0.61	4.8	2.6	15	LC
H7592Q	95.0	92.3	91.8	92.1	92.8	0.02	3.8	1.5	93.1	0.27	3.3	2.3	16	LZ
J4GX3K	91.5	93.1	90.7	90.9	91.6	-0.25	5.2	1.1	94.9	0.69	4.3	3.1	14	LC
KD9DZU	98.7	100.2	96.5	94.9 H	97.6	1.08	4.6	2.3	95.8	0.92	4.4	2.5	16	LC
KNH4L5	97.5	100.7	96.7	100.0	98.7	1.33	4.6	1.9	95.0	0.73	4.1	4.8 H	16	LC
LFGXEG	87.9	85.8	85.0	86.7	86.4	-1.40	3.5	1.3	84.0	-2.00 *	3.9	2.6	16	XX
LPDNJQ	92.4	92.9	92.5	89.2	91.7	-0.21	5.6	1.7	85.7	-1.57	4.2	4.3	15	EM



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
NDV8P7	96.3	98.0	99.0	99.9	98.3	1.24	4.3	1.5	96.9	1.19	4.4	4.0	16	LC
NXYPLJ	93.9	89.2	91.7	94.3	92.3	-0.09	3.7	2.3	92.5	0.12	3.5	1.5	16	LC
NZ9HNY	89.4	89.5	88.2	88.0	88.8	-0.87	3.5	0.8	88.2	-0.96	3.9	2.5	16	EN
P8B9HL	86.4 H	96.2	92.4 H	96.3	92.8	0.03	7.9	4.7 H	90.0	-0.50	7.7	4.3	12	LC
Q1SBH5	92.9	94.3	93.3	92.0	93.1	0.09	4.4	1.0	90.4	-0.41	3.9	2.6	16	LC
Q8YYHL	77.0 X	76.1 X	75.8 X	78.1 *	76.7	-3.52 X	4.9	1.0	74.9	-4.23 X	4.5	3.8	16	TB
QMEY6Y	86.4	86.9	84.7	86.8	86.2	-1.44	4.0	1.0	84.5	-1.87	3.6	1.9	16	TM
QQ16NS	91.1	88.9	93.5	No Data	91.2	-0.34	5.7	2.3	90.6	-0.36	4.7	2.0	15	LC
QWU3SA	100.9	97.6	99.2	97.1	98.7	1.33	4.5	1.7	95.6	0.87	4.0	3.3	16	LC
QWX36P	No Data	95.0	94.3	93.7	94.3	0.36	4.7	0.7	90.3	-0.43	4.0	7.3 H	11	LD
RA4K4Q	98.9	103.4 *	No Data	106.0 *	102.8	2.23 *	3.5	3.6	100.0	1.96	5.4	5.4 H	15	LC
RCFHFM	91.3	94.9	91.5	90.5	92.1	-0.14	3.8	1.9	92.5	0.12	4.3	2.2	16	LX
RNY8MQ	92.8	90.4	96.3	95.0	93.6	0.20	4.4	2.6	93.9	0.45	4.2	1.9	12	LC
RSLE8C	98.4	99.4	95.6	97.2	97.7	1.09	4.4	1.7	96.8	1.17	4.0	2.0	16	EM
S2BS95	93.2 H	93.5	91.7	91.1	92.4	-0.07	4.3	1.2	92.4	0.09	2.8	1.7	16	LZ
S3WLPS	88.8	90.4	88.3	89.7	89.3	-0.75	3.9	0.9	90.9	-0.28	4.2	3.1	14	LC
U8WY8U	86.4	86.6	84.9	85.4	85.8	-1.52	3.8	0.8	84.3	-1.91	4.2	1.8	16	TQ
UA1MQ5	94.2 L	94.0	94.7	95.3	94.6	0.41	2.9	0.6	92.4	0.09	4.1	2.9	15	LC
UNK57N	88.1	89.1	No Data	No Data	88.6	-0.90	5.7	0.7	90.0	-0.51	4.4	2.8	12	MZ
W3Y5FB	79.8 *	80.3 *	87.0	83.5	82.6	-2.22 *	4.1	3.3	82.3	-2.42 *	4.7	2.9	16	EM
W52WDR	92.7	96.9	96.4	95.6	95.4	0.60	3.8	1.9	96.0	0.96	4.3	3.0	16	LC
W77G4B	93.6	93.5	93.3	93.8	93.6	0.19	3.2	0.2 L	94.4	0.58	3.7	0.9	16	LC
X55ME7	90.7	87.4	91.2	93.8	90.8	-0.43	4.3	2.6	89.4	-0.64	3.6	2.2	16	EM
XDR2RP	93.7	94.6	91.7	96.5	94.1	0.31	4.2	2.0	92.0	-0.01	4.5	8.2 H	16	LC
XV1V5X	92.4	91.7	97.2	95.3	94.2	0.32	4.6	2.6	94.5	0.61	4.7	3.3	16	LC
XWMWFN	87.8	85.1	91.2	87.1	87.8	-1.09	4.4	2.5	88.1	-0.97	4.1	2.4	16	TB
Y2B9WM	94.0	94.8	95.8	92.4	94.2	0.34	3.7	1.4	94.6	0.62	3.7	1.3	16	LD
YG7CZ7	94.8	92.5	95.8	92.3	93.8	0.25	3.7	1.7	93.9	0.46	4.2	1.9	16	LD
YZTYFW	92.0	93.2	90.8	92.3	92.1	-0.14	4.0	1.0	91.8	-0.05	4.6	0.9	16	TD
ZUF3YK	89.3	90.2 L	92.3	90.1	90.5	-0.49	3.2	1.3	90.3	-0.44	2.8	1.9	16	LC
ZW5EXQ	92.6	94.6	93.6	96.1	94.2	0.34	4.5	1.5	92.4	0.08	3.9	1.5	16	LX



Consensus (All Labs) Results

Wk Mean	92.31	92.69	92.96	92.66	Month Mean	92.70	Grand Mean	92.06
Avg SDr	4.36	3.94	4.56	4.28	Avg SDr	4.21	Avg SDr	4.12
SD btwn Labs	4.85	4.87	4.45	5.46	SD btwn Labs	4.53	SD btwn Labs	4.05
Labs Includ	62	63	60	61	SD btwn Wks	2.08	SD btwn Wks	2.89
Labs Exclud	2	2	2	0	Labs Includ	63	Labs Includ	63
Labs not rcvd	1	0	3	4				

Instrument Code List as Reported by the Labs

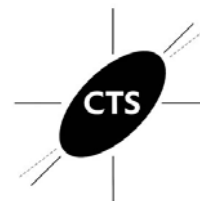
(EM) - Emerson 1200	(EN) - Emerson 2200
(IM) - Instron 4486	(LC) - L & W Crush Tester 48
(LD) - L&W Crush Tester 248	(LX) - L & W 506
(LZ) - L & W Crush Tester (model not specified)	(MB) - Messmer Buchel K440
(MZ) - Messmer Buchel (model not specified)	(TB) - TMI Monitor/Compression Tester, Model 17-70
(TC) - TMI Monitor/Compression Tester, Model 17-37	(TD) - TMI Digital Crush Tester, Model 17-09
(TM) - TMI/Hinde & Dauch	(TQ) - Thwing-Albert QC-II Series
(TX) - TMI Digital Crush Tester (model not specified)	(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
13K129	74.1 H	77.5 H	70.4	71.1 H	73.2	-1.25	8.4	3.2	75.8	-0.67	6.9	6.3 H	12	LC
14GH84	80.0	77.0	77.1	No Data	78.0	-0.12	3.0	1.7	79.1	0.24	3.4	2.2	9	LC
2D3DYP	82.9	79.2	84.0	79.8	81.5	0.70	4.1	2.3	80.6	0.67	4.1	1.9	12	LX
2LFBVJR	84.2	78.6	82.1	87.5	83.1	1.08	4.1	3.8	81.9	1.04	4.4	3.6	12	MB
3BCZ1L	71.7 L	73.1	69.5	70.6	71.2	-1.72	3.1	1.5	72.0	-1.73	3.3	2.0	12	TM
3JYAPT	83.3	85.3	86.1	83.9	84.7	1.45	4.0	1.3	80.2	0.56	4.1	3.6	12	LC
4CW9FC	74.7	77.4	81.9	78.6	78.1	-0.09	4.8	3.0	78.7	0.14	4.2	3.2	12	LC
4ZXX5T	76.9	78.5	75.6	75.9	76.7	-0.43	5.0	1.3	76.9	-0.36	3.8	1.7	12	LC
5ME37Z	75.4	75.3	77.3	76.7	76.2	-0.55	3.9	1.0	78.4	0.05	4.0	2.3	12	LC
5N5NGB	79.6	78.5	No Data	No Data	79.1	0.13	4.5	0.8	77.5	-0.19	4.2	2.1	10	MZ
6MHWTE	79.5	75.0	79.9	78.2	78.1	-0.09	3.8	2.2	77.0	-0.33	4.0	3.0	12	LC
6NDQC4	72.1	67.5 *L	70.9 L	72.9 L	70.8	-1.81	2.0	2.4	71.4	-1.89	2.7	2.3	12	XX
6SVUKZ	75.4 L	74.8	77.6 L	72.7	75.1	-0.80	2.1	2.1	75.0	-0.89	2.9	1.6	12	LD
7A2RZN	74.5	76.4	74.9	74.5	75.1	-0.82	4.5	0.9	76.2	-0.56	4.9	1.4	12	TD
7RLFZH	82.5	80.7	84.8	87.9	84.0	1.29	4.5	3.1	80.4	0.60	4.1	5.2 H	12	LC
97KVVN	80.7	82.7	86.1	78.0	81.9	0.79	5.1	3.4	79.9	0.48	4.2	2.7	12	MB
9DKRP8	78.5	83.9	83.8	No Data	82.1	0.84	5.4	3.1	79.0	0.22	5.1	4.7 H	11	LC
9KZ6ZC	75.8	77.3	77.6	79.8	77.6	-0.21	4.2	1.6	77.6	-0.16	3.9	1.3	12	EN
A3N3KB	82.4	80.1	79.2	83.0	81.2	0.62	5.6	1.9	78.4	0.06	4.6	2.6	12	LC
AARYVW	73.5	76.2	79.8	74.9	76.1	-0.57	5.1	2.7	72.1	-1.71	4.4	3.6	12	EM
AYYYD7	78.9	86.0	87.5	No Data	84.1	1.33	6.2	4.6 H	80.7	0.71	5.7	4.4	11	LC
BPRXJT	77.9	74.0	75.8	78.5	76.5	-0.46	3.9	2.1	74.7	-0.99	4.4	2.0	12	EM
C9SY2V	78.7	81.1	78.9	80.3	79.7	0.29	5.0	1.1	80.4	0.63	4.4	1.4	12	EM
CNKPC7	81.0	80.0	77.6	74.8	78.4	-0.04	3.9	2.8	78.1	-0.03	4.2	3.0	12	LX
DTXXJU	77.1 H	77.1	83.8	77.8 H	78.9	0.10	5.8	3.2	78.2	-0.01	4.5	2.0	12	LZ
DVCEEU	77.6	77.3	77.8	74.9	76.9	-0.38	4.5	1.3	78.7	0.14	4.1	2.0	12	LD
EPGQVV	80.4	80.9	77.6	77.1	79.0	0.11	3.2	1.9	80.0	0.52	4.0	2.8	11	LC
F4BEP6	75.3	76.3	74.4	73.9	75.0	-0.83	2.6	1.1	75.5	-0.76	3.1	1.5	12	LC
FP58S7	75.0	79.6	81.7	85.0	80.3	0.42	4.6	4.2	79.9	0.49	4.5	3.1	12	LC
GPLS9K	68.3 *	69.6	71.9	72.5	70.6	-1.87	5.5	2.0	71.1	-1.99	5.1	1.8	12	LZ
GR65RV	No Data	88.7 *	86.8	89.5 *	88.3	2.32 *	5.6	1.4	84.7	1.83	5.3	4.3	11	LC
GSZFJV	49.4 X	53.6 XH	59.1 XH	67.4 *H	57.4	-5.00 X	7.7	7.8 H	60.3	-4.99 X	7.5	6.8 H	12	IM
GUKS3N	82.7	84.3	84.7	85.3	84.3	1.35	3.6	1.1	83.6	1.51	3.3	2.5	12	LC
H1JSZV	74.9	74.0	69.2	75.6	73.4	-1.20	4.8	2.9	78.4	0.07	4.6	4.2	12	XX



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	
H5ZK4N	80.9	85.8	85.2	79.2	82.8	1.01	4.1	3.2	84.5	1.76	4.3	2.8	12	EM
HWF4W1	84.0	85.6	79.8 H	78.1 H	81.9	0.79	6.2	3.5	80.1	0.52	5.1	3.1	10	LC
J1QLP2	78.5 L	80.8 L	82.1 L	77.2 L	79.6	0.27	1.8	2.2	77.6	-0.16	2.0	2.1	12	EM
JL2653	72.9	75.6	69.9	72.9	72.9	-1.34	4.6	2.3	73.3	-1.37	4.7	2.2	12	EN
KB8CAH	83.7	80.6	81.9	86.4	83.1	1.09	4.8	2.5	82.3	1.16	4.5	3.7	12	LD
KPK1M7	83.8	83.8	85.1	85.1	84.5	1.40	4.1	0.8	82.9	1.32	4.5	1.6	12	LC
L67VTF	70.9	72.6	74.0	73.8	72.8	-1.35	4.1	1.4	70.3	-2.20*	4.1	3.1	12	XX
LJQRNT	No Data	76.8	76.2	77.4	76.8	-0.41	3.8	0.6	74.4	-1.06	3.9	6.3 H	9	LD
MEWDS4	78.1	79.7	77.6	No Data	78.5	-0.01	4.1	1.1	80.6	0.69	4.0	2.5	10	LC
NPYXSA	77.9	78.2	79.2	83.5	79.7	0.28	2.7	2.6	78.7	0.13	2.4	2.1	12	LZ
NWL6PT	82.8 L	86.1	87.9	87.2	86.0	1.76	3.9	2.2	85.7	2.10*	4.0	2.2	12	LC
P1UVG1	77.4	78.7	80.2	78.0	78.6	0.01	3.6	1.2	77.8	-0.12	3.4	1.6	12	TQ
P8ERMB	79.9	77.8	79.7	78.7	79.0	0.12	3.3	1.0	78.9	0.20	3.5	2.0	12	LC
PV7UT9	82.9	86.6	87.2	83.3	85.0	1.53	4.0	2.2	82.9	1.33	4.6	2.5	12	LD
QAXCQJ	77.4	74.9	76.1	76.8	76.3	-0.52	3.2	1.1	77.7	-0.14	3.8	1.6	12	LC
QB6H6S	88.2*	89.6*	85.2	86.9	87.5	2.12*	3.8	1.9	87.1	2.49*	4.4	2.4	12	LD
QQZWPN	75.1	74.2	77.9	76.7	76.0	-0.60	3.2	1.6	75.1	-0.87	3.0	1.5	12	TX
RU7P8L	67.4*	66.1*	69.2 H	66.4*	67.3	-2.65*	5.3	1.4	66.4	-3.28 X	5.3	1.6	8	TB
RU9R7H	76.0 L	77.7	No Data	76.8	76.8	-0.40	2.6	0.9	75.5	-0.76	2.6	1.2	11	TC
SEU8Q3	80.9	80.8	82.8	80.9	81.4	0.67	4.2	1.0	82.0	1.06	4.8	1.8	12	LC
SHRAH4	81.4	77.4	78.2	78.5	78.9	0.08	4.5	1.7	76.8	-0.40	3.8	3.2	12	LC
TMY322	78.2	77.7	77.4	76.6	77.5	-0.25	5.5	0.7	76.9	-0.36	5.4	0.8	8	LC
U1ADZH	73.3	74.0	72.8	74.2	73.6	-1.17	3.5	0.7	73.7	-1.24	3.1	1.2	12	EM
U53M13	76.6 L	74.6	77.2	77.6	76.5	-0.47	3.1	1.3	79.3	0.31	3.4	2.2	12	TD
UHM6JL	76.6	76.9	75.9	76.3	76.4	-0.49	4.2	0.4	73.5	-1.32	4.5	3.2	12	EM
UL3TWR	77.8	82.3	80.8	83.8	81.2	0.63	4.5	2.6	79.4	0.33	4.5	2.4	12	LC
XE4GDX	73.4	71.9 H	83.0	79.4	76.9	-0.38	4.4	5.2 H	76.0	-0.62	4.9	4.4	11	LC
XS6RKD	82.4	77.8	78.7	78.0	79.2	0.17	4.3	2.1	80.1	0.55	4.4	2.8	12	TC
YLJ1XH	72.6	73.1 L	74.0	71.9	72.9	-1.32	3.2	0.9	73.4	-1.35	3.2	2.5	12	TB
YNPMCH	76.5	76.4	76.6	77.5	76.8	-0.42	4.1	0.5	77.6	-0.15	4.3	1.6	12	LC
YY3UWP	76.5	78.2	76.7	79.7	77.8	-0.17	4.2	1.5	77.5	-0.19	3.6	4.1	12	TD
ZR9BLS	80.7	81.1	83.6	76.2	80.4	0.44	3.5	3.1	80.6	0.67	4.2	2.0	12	LD



Consensus (All Labs) Results

Wk Mean	77.94	78.41	79.02	78.26	Month Mean	78.52	Grand Mean	78.19
Avg SDr	4.00	4.21	4.74	4.46	Avg SDr	4.34	Avg SDr	4.19
SD btwn Labs	4.12	4.69	4.92	5.00	SD btwn Labs	4.24	SD btwn Labs	3.57
Labs Includ	63	65	63	61	SD btwn Wks	2.23	SD btwn Wks	2.88
Labs Exclud	1	1	1	0	Labs Includ	65	Labs Includ	64
Labs not rcvd	2	0	2	5				

Instrument Code List as Reported by the Labs

(EM) - Emerson 1200	(EN) - Emerson 2200
(IM) - Instron 4486	(LC) - L & W Crush Tester 48
(LD) - L&W Crush Tester 248	(LX) - L & W 506
(LZ) - L & W Crush Tester (model not specified)	(MB) - Messmer Buchel K440
(MZ) - Messmer Buchel (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
(TM) - TMI/Hinde & Dauch	(TQ) - Thwing-Albert QC-II Series
(TX) - TMI Digital Crush Tester (model not specified)	(XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program

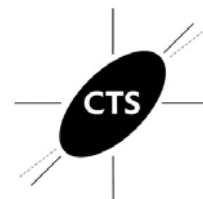
Analysis 223

STFI, 42 lb Linerboard - 42X2

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	
3C4LNN	26.5	25.8	25.7	26.7	26.2	1.79	2.4	0.5	26.1	1.95	2.3	1.0	16	XX
4D79C7	25.4	26.1	26.5*	26.9	26.2	1.84	2.4	0.6	26.1	2.01*	3.5	3.3 H	12	LU
4ERKC6	25.3	24.7	No Data	24.6	24.8	0.48	1.7	0.4	24.5	0.26	1.7	0.4	15	BK
63PNN9	27.3 L	25.6 L	24.0 L	27.8* L	26.2	1.80	0.0	1.7	25.5	1.32	1.6	1.6	16	LZ
655X18	24.6	23.6	23.2	26.9	24.6	0.21	2.2	1.6	24.6	0.30	2.3	1.2	16	LA
6QFGFA	25.3	24.9	25.0	26.2	25.4	0.99	2.3	0.6	26.1	1.99	2.2	1.0	16	XX
8M6RYE	24.5	24.5	23.9	24.8	24.4	0.08	1.9	0.4	24.4	0.08	1.9	0.6	16	LU
94ALBH	22.7	23.4	23.1	23.2	23.1	-1.26	2.1	0.3	23.9	-0.46	2.2	1.1	16	XX
9W9XAZ	24.5	22.7	23.6	24.0	23.7	-0.66	1.7	0.7	23.7	-0.66	1.8	0.7	16	LW
A1R98U	23.7 L	22.4 L	22.9 L	22.1 L	22.8	-1.55	0.4	0.7	23.4	-0.94	0.4	0.8	16	XX
AMKDND	24.0	25.2	24.8	24.8	24.7	0.31	2.2	0.5	24.5	0.26	2.3	0.8	16	LW
BCRKTT	24.3	22.9	23.9	24.0	23.8	-0.58	2.1	0.6	24.1	-0.27	2.0	0.7	16	XX
BKT63M	24.0	24.7	24.1	24.3	24.3	-0.09	2.2	0.3	24.5	0.21	1.9	0.9	16	LW
BXXXLE	20.4*	20.5 X	20.7 X	21.2	20.7	-3.58 X	1.9	0.3	20.8	-3.89 X	1.6	1.4	16	LZ
DDAAZQ	23.7	23.1	22.3	23.0	23.0	-1.31	1.9	0.6	22.7	-1.75	2.0	0.6	16	XX
DTTZ7S	No Data	No Data	24.2	24.6	24.4	0.04	2.4	0.3	24.3	0.03	2.3	0.6	14	LW
EADVCD	26.3 L	24.9 L	25.4 L	27.0 L	25.9	1.51	0.1	0.9	25.5	1.29	0.1	1.0	16	TS
ENC87	24.4	24.5	24.5	24.7	24.5	0.17	1.4	0.1 L	24.1	-0.18	1.5	0.4	16	LU
G93LYZ	23.9	23.6	24.0	23.4	23.7	-0.63	1.9	0.3	23.5	-0.85	2.2	0.4	16	LU
HAZQDD	25.1	23.6	25.4	23.4 L	24.4	0.04	1.6	1.0	24.3	-0.04	1.8	0.8	16	LU
HCAAK2	23.4 L	21.9* L	23.8 L	22.5 L	22.9	-1.43	0.4	0.9	22.8	-1.69	0.4	0.7	16	LA
HQTDA5	24.9	24.9	23.4 L	No Data	24.4	0.02	1.7	0.9	23.5	-0.88	1.8	1.2	15	LW
HWWWF4	23.1	24.1	24.0	No Data	23.7	-0.62	2.2	0.6	24.9	0.64	1.8	1.1	15	LU
JTX9N6	23.8	23.6	23.8	24.3	23.9	-0.49	2.2	0.3	23.7	-0.63	2.0	0.4	16	LW
KAXAMY	23.2	23.5	22.2	21.9	22.7	-1.62	1.9	0.8	22.9	-1.59	1.9	0.5	16	LU
LBYCE2	21.8	23.5	21.9* L	No Data	22.4	-1.93	2.0	1.0	23.6	-0.79	1.7	1.0	15	XX
NSCM2M	24.1	23.8	24.0	23.5	23.8	-0.53	2.2	0.3	24.0	-0.29	2.2	0.6	14	LW
PA2GUV	25.2	25.2	26.0	22.4	24.7	0.35	2.1	1.6	24.6	0.37	2.2	1.0	14	LW
PRV6UY	24.0 L	24.7 L	23.4 L	25.0 L	24.3	-0.08	0.4	0.7	24.8	0.51	0.4	1.1	16	LA
PYHRJX	24.9	25.5	24.8	No Data	25.1	0.70	2.0	0.4	25.0	0.83	1.6	0.9	15	LU
R3P4BF	20.9*	25.1	23.9	21.7	22.9	-1.45	2.1	1.9 H	22.9	-1.51	2.2	1.0	16	LZ
RK3QC5	22.8	24.8	22.4	25.7	23.9	-0.43	1.9	1.6	23.8	-0.56	2.0	1.6	16	LW
SYK68U	25.5	24.6	25.0	25.1	25.1	0.69	1.2	0.4	24.9	0.65	1.3	0.3	16	LW
V8CARZ	26.7	25.2	25.6	26.1	25.9	1.54	1.7	0.6	25.7	1.52	1.7	0.7	12	LZ



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	
VFEV1T	22.3 L	25.0 L	24.4 L	No Data	23.9	-0.48	0.5	1.4	22.9	-1.52	0.4	1.2	15	XX
VUYH6K	No Data	23.9	25.5	24.6	24.7	0.30	2.2	0.8	24.5	0.27	2.0	0.6	11	LW
WD3KE9	24.5	25.1	24.7	23.5	24.5	0.10	2.5	0.7	24.1	-0.17	2.1	0.6	16	LW
WDAHBS	23.4	24.4	24.0	23.1	23.7	-0.61	2.1	0.6	23.8	-0.54	2.1	0.6	16	LW
X7NXUY	26.2	23.9	24.8	25.5 H	25.1	0.70	3.7	1.0	24.8	0.53	3.8	1.2	15	LW
Z7AXBK	25.4	24.8	25.4	24.9	25.1	0.76	2.0	0.3	25.1	0.84	2.2	0.5	16	LU
ZE3S8C	27.4	25.4	24.0	26.1 L	25.7	1.34	1.8	1.4	23.8	-0.53	2.1	2.0 H	14	LA
ZN1988	41.3 XL	39.2 XL	40.6 XL	41.3 XL	40.6	15.99 X	0.0	1.0	40.1	17.44 X	0.0	1.3	8	LU

Consensus (All Labs) Results									
Wk Mean	24.34	24.33	24.19	24.43	Month Mean	24.36	Grand Mean	24.30	
Avg SDr	1.97	1.87	1.80	2.11	Avg SDr	1.94	Avg SDr	1.99	
SD btwn Labs	1.56	0.97	1.08	1.64	SD btwn Labs	1.01	SD btwn Labs	0.90	
Labs Incd	39	39	39	36	SD btwn Wks	0.88	SD btwn Wks	1.06	
Labs Exclcd	1	2	2	1	Labs Incd	40	Labs Incd	40	
Labs not rcvd	2	1	1	5					

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)

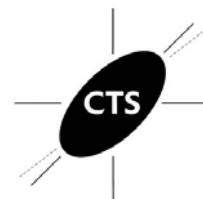
(LZ) - L & W (model not specified)

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

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



WebCode	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
27R5Y1	19.3	19.0*	18.9	19.2	19.1	-1.77	1.3	0.2	19.4	-1.69	1.4	0.4	12	XX
29EGX6	37.6XL	37.9XL	37.2XL	35.9XL	37.1	14.77X	0.0	0.9	30.1	8.78X	0.0	7.5H	8	LU
39WQNM	21.7	20.8	20.3	20.5	20.8	-0.20	2.0	0.6	20.6	-0.52	2.1	0.8	12	LW
3D1BZR	19.4L	19.4L	21.1L	20.8L	20.2	-0.80	0.3	0.9	20.9	-0.15	0.3	1.2	12	LA
3T8JPT	20.6L	20.5	21.7	20.2L	20.7	-0.27	1.6	0.7	20.7	-0.35	1.7	0.7	12	LU
3YGVNE	19.3	20.1	18.9	20.4	19.7	-1.26	1.5	0.7	19.9	-1.20	1.6	0.9	12	LU
4A7XG7	22.1	23.5*	21.8	22.1	22.4	1.22	1.9	0.8	23.4	2.24*	1.9	4.8H	12	LU
56FHS5	21.6	21.6	21.9	21.4	21.6	0.55	1.5	0.2	21.5	0.39	1.6	0.3	12	BK
7BQPWN	18.8	20.2	19.7	No Data	19.6	-1.35	1.5	0.7	21.2	0.15	1.5	1.3	10	XX
8UNAG5	21.6	21.5	21.5	20.8	21.4	0.29	1.6	0.4	20.0	-1.04	1.9	1.7	10	LA
9A5FPB	20.9	21.8	21.1	21.5	21.3	0.23	1.4	0.4	21.0	-0.08	1.5	0.5	12	LU
A287XC	21.1	20.6	20.7	21.5	21.0	-0.02	1.7	0.4	21.2	0.06	1.7	1.1	12	LU
A83MWR	21.0	19.9	19.8	No Data	20.2	-0.73	1.5	0.7	20.6	-0.51	1.6	0.8	9	LU
AVDN5P	21.1L	21.8L	22.5L	22.7L	22.0	0.89	0.1	0.7	21.6	0.45	0.1	0.6	12	TS
BRA7YK	21.4	22.4	21.7	22.5H	22.0	0.87	3.1	0.5	21.9	0.79	3.2	0.9	10	LW
C9PFX5	21.4	20.8	20.7	20.6	20.9	-0.15	1.1	0.3	21.1	0.00	1.1	0.3	12	LW
CPMVZE	18.8	17.9X	18.6*	18.9	18.5	-2.29*	1.1	0.5	18.6	-2.39*	1.3	0.8	12	LZ
E5HDCE	23.0	21.4	22.0	No Data	22.1	0.98	1.6	0.8	23.8	2.68*	1.6	5.6H	11	LW
E5SSXW	20.3	20.3	19.2	20.2	20.0	-0.95	1.6	0.5	20.6	-0.49	1.8	0.6	11	LW
ELPF82	23.1	22.6	22.2	23.0	22.7	1.55	2.3	0.4	21.8	0.73	2.0	0.8	12	LA
EM3A24	20.1	21.0	20.4	19.8	20.3	-0.65	1.7	0.5	20.5	-0.62	1.7	0.4	12	LU
FPT8DL	18.9	22.3	19.8	22.6	20.9	-0.13	1.1	1.9H	20.8	-0.27	1.1	1.3	8	LZ
GUHLUL	21.8	20.8	22.1	20.9	21.4	0.34	1.6	0.7	21.2	0.13	1.8	0.6	12	LW
GUL3YB	22.0	22.1	22.0	21.7	22.0	0.84	1.5	0.2	22.1	0.94	1.6	0.2L	12	XX
HF397R	22.5	22.3	20.5	24.1*	22.4	1.22	2.1	1.5	20.6	-0.49	1.8	1.5	12	LZ
J5TXZE	20.7	20.8	21.3	21.4	21.1	0.02	1.8	0.3	21.1	-0.04	1.8	0.4	12	LW
J8WN8E	20.4	20.4	20.2	19.9	20.2	-0.75	1.7	0.2	20.8	-0.26	1.8	0.7	12	XX
K3KZA4	18.8L	20.8L	20.8L	No Data	20.1	-0.82	0.3	1.1	19.8	-1.29	0.3	1.1	11	XX
K89YMT	22.6	22.3	22.8	21.7	22.3	1.20	1.7	0.5	22.7	1.53	1.8	0.7	12	XX
LDTQ4K	No Data	No Data	21.7	22.4	22.1	0.93	1.2	0.5	21.6	0.45	1.7	0.6	10	LW
NQPA2G	20.0L	20.2L	19.5L	18.7L	19.6	-1.34	0.3	0.7	20.4	-0.67	0.3	0.9	12	XX
NWNESS	No Data	21.6	21.6	20.8	21.3	0.28	1.7	0.4	20.8	-0.28	1.7	0.7	9	LW
PJMAUZ	19.5	20.9	20.6	No Data	20.3	-0.64	1.4	0.7	22.3	1.17	1.6	1.4	10	LU
QY6JHV	21.1L	19.7L	21.0L	18.8L	20.2	-0.81	0.3	1.1	19.6	-1.44	0.3	0.9	12	LA



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	
U4P38T	21.5	20.8	21.2	21.1	21.2	0.12	1.7	0.3	21.5	0.44	1.9	0.5	12	BK
V29GHQ	22.6	21.6	22.8	26.1 X	23.3	2.04*	2.0	2.0 H	21.8	0.73	2.0	1.5	12	LW
WGVAHT	21.1	20.6	19.7	21.3	20.7	-0.33	1.7	0.7	20.5	-0.55	1.8	0.4	12	LW
WRJ6G9	20.7	19.8	19.5	20.3	20.1	-0.88	1.5	0.5	20.8	-0.25	1.7	0.8	12	XX
X2SWAQ	22.5	23.5*	22.9	No Data	23.0	1.77	1.4	0.5	22.3	1.16	1.4	0.9	10	LU
Y6EJAF	21.5 L	22.7 L	23.3 L	22.8 L	22.6	1.41	0.1	0.7	22.6	1.45	1.2	1.3	12	LZ
YPQS9A	20.0	19.9	22.3	20.8	20.7	-0.29	1.8	1.1	20.4	-0.67	1.7	0.8	11	LW
Z39NBT	19.8	20.7	20.4	20.1	20.2	-0.72	2.0	0.4	20.5	-0.56	1.8	1.0	12	LW
Z8WPZK	20.9	21.1	21.4	22.5	21.5	0.39	2.2	0.7	21.4	0.33	2.1	0.8	12	LW

Consensus (All Labs) Results									
Wk Mean	20.89	21.11	20.99	21.08	Month Mean	21.04		Grand Mean	21.09
Avg SDr	1.53	1.65	1.56	1.66	Avg SDr	1.59		Avg SDr	1.65
SD btwn Labs	1.22	1.07	1.19	1.29	SD btwn Labs	1.09		SD btwn Labs	1.03
Labs Includ	40	40	42	35	SD btwn Wks	0.77		SD btwn Wks	1.44
Labs Exclud	1	2	1	2	Labs Includ	42		Labs Includ	42
Labs not rcvd	2	1	0	6					

Instrument Code List as Reported by the Labs

(BK) - Buchel Strip Compression Tester BK-155

(LA) - L & W Autoline

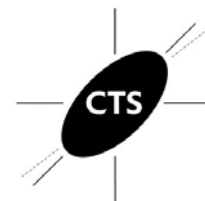
(LU) - L & W 52 without moisture correction (was 53)

(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				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
2A6484	113.7	-0.62	11.4	113.7	-0.62	11.4	1	EV
2QKB7M	134.5	0.50	14.5	134.5	0.50	14.5	1	EV
396598	143.1	0.96	15.9	143.1	0.96	15.9	1	EV
3SKY5J	125.4	0.01	11.0	125.4	0.01	11.0	1	EV
BM3LJN	124.3	-0.05	11.1	124.3	-0.05	11.1	1	EV
CH4U4G	192.3	3.61 X	32.7	192.3	3.61 X	32.7	1	EV
CS7P5F	101.7	-1.26	5.4	101.7	-1.26	5.4	1	EV
DZZ2EK	108.3	-0.91	7.9	108.3	-0.91	7.9	1	EV
ER5N8M	126.5	0.07	3.6	126.5	0.07	3.6	1	EV
G1FWMR	141.3	0.87	13.8	141.3	0.87	13.8	1	XX
H474Y1	155.0	1.60	9.4	155.0	1.60	9.4	1	EV
HKVEL3	87.0	-2.06 *	9.3	87.0	-2.06*	9.3	1	EV
LCESPW	137.3	0.65	12.0	137.3	0.65	12.0	1	EV
MFJKNC	112.3	-0.69	13.0	112.3	-0.69	13.0	1	EV
MT1324	103.7	-1.16	12.1	103.7	-1.16	12.1	1	EV
PVXXPH	152.2	1.45	10.1	152.2	1.45	10.1	1	EV
PX6EUM	137.6	0.67	22.9	137.6	0.67	22.9	1	EV
Q4W6YM	100.5	-1.33	10.5	100.5	-1.33	10.5	1	EV
R52WM4	133.3	0.43	11.0	133.3	0.43	11.0	1	EV
RJMLNE	147.9	1.22	20.7	147.9	1.22	20.7	1	EV
VADKC2	242.5	6.31 X	16.4	242.5	6.31 X	16.4	1	EV
WZPJBC	216.4	4.90 X	21.2	216.4	4.90 X	21.2	1	EV
XEJRZJ	116.5	-0.47	17.2	116.5	-0.47	17.2	1	LA
XH6AEN	127.3	0.11	13.5	127.3	0.11	13.5	1	LA

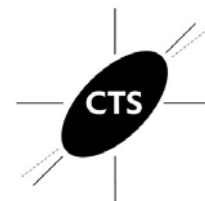
Consensus (All Labs) Results			
Month Mean	125.21	Grand Mean	125.21
Avg SDr	12.96	Avg SDr	12.96
SD btwn Labs	18.60	SD btwn Labs	18.60
Labs Incd	21	Labs Incd	21

Instrument Code List as Reported by the Labs

(EV) - Emveco Microgag Model 210-R

(LA) - L & W Autoline

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



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
5SKQEP	115.2	0.96	7.7	115.2	0.96	7.7	1	HZ
7SWFWC	109.4	0.43	9.2	109.4	0.43	9.2	1	SC
8S15R2	106.6	0.18	7.2	106.6	0.18	7.2	1	SC
9AK33E	109.6	0.45	2.8	109.6	0.45	2.8	1	HY
9CDVB5	102.0	-0.24	3.3	102.0	-0.24	3.3	1	HY
A6BEJG	101.4	-0.30	3.4	101.4	-0.30	3.4	1	TM
CKLDG8	101.5	-0.29	3.9	101.5	-0.29	3.9	1	SC
CN8K3V	123.8	1.74	11.6	123.8	1.74	11.6	1	HY
ED27CJ	85.0	-1.78	5.8	85.0	-1.78	5.8	1	TM
HYP2HU	86.6	-1.64	6.2	86.6	-1.64	6.2	1	TM
MRULZS	102.3	-0.21	10.6	102.3	-0.21	10.6	1	SC
YJVPYC	112.4	0.70	5.8	112.4	0.70	5.8	1	SC

Consensus (All Labs) Results			
Month Mean	104.65	Grand Mean	104.65
Avg SDr	7.03	Avg SDr	7.03
SD btwn Labs	11.01	SD btwn Labs	11.01
Labs Incd	12	Labs Incd	12

Instrument Code List as Reported by the Labs

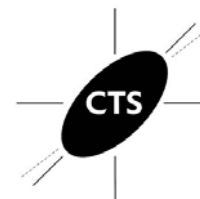
(HY) - Huygen Digitized Scott Internal Bond Tester

(HZ) - Huygen Internal Bond Tester with AccuPress

(SC) - Scott Internal Bond Tester (Manual)

(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

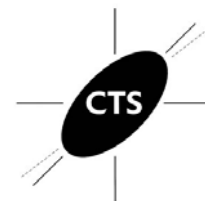


WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
2B3TWC	29.6	0.17	4.7	29.6	0.17	4.7	1	ZZ
3FKLEH	27.6	-0.28	3.1	27.6	-0.28	3.1	1	ZZ
4YYDZZ	39.8	2.43 *	2.9	39.8	2.43*	2.9	1	ZZ
59EWEV	30.6	0.39	5.1	30.6	0.39	5.1	1	ZZ
5EHXA7	25.9	-0.65	3.6	25.9	-0.65	3.6	1	ZZ
5KV2CD	24.3	-1.00	0.8	24.3	-1.00	0.8	1	ZZ
6S431L	22.0	-1.52	4.2	22.0	-1.52	4.2	1	ZZ
HYSKNK	27.1	-0.39	1.3	27.1	-0.39	1.3	1	ZZ
JETWN9	30.4	0.35	3.0	30.4	0.35	3.0	1	ZZ
JS8CLC	31.0	0.48	2.0	31.0	0.48	2.0	1	ZZ
MXQAZX	26.6	-0.50	0.4	26.6	-0.50	0.4	1	ZZ
P3EFYK	32.0	0.70	3.2	32.0	0.70	3.2	1	ZZ
TTK1P3	24.4	-0.99	2.6	24.4	-0.99	2.6	1	ZZ
VEUS11	32.6	0.83	3.9	32.6	0.83	3.9	1	ZZ
VHE8DK	25.9	-0.65	3.3	25.9	-0.65	3.3	1	ZZ
Y5VNJR	30.8	0.43	2.4	30.8	0.43	2.4	1	ZZ
ZK1FHD	34.8	1.32	1.3	34.8	1.32	1.3	1	ZZ
ZSJD9C	31.0	0.48	0.6	31.0	0.48	0.6	1	ZZ
ZXXZCG	21.6	-1.61	3.0	21.6	-1.61	3.0	1	ZZ

Consensus (All Labs) Results			
Month Mean	28.84	Grand Mean	28.84
Avg SDr	3.01	Avg SDr	3.01
SD btwn Labs	4.51	SD btwn Labs	4.51
Labs Incd	19	Labs Incd	19

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
1LXNNG	14.8	-1.35	4.2	14.8	-1.35	4.2	1	HG
4CNYXF	18.7	1.49	2.8	18.7	1.49	2.8	1	GG
4EX3NB	18.4	1.31	1.6	18.4	1.31	1.6	1	XX
4GAZL7	15.5	-0.85	1.8	15.5	-0.85	1.8	1	TL
DJRE7L	18.0	1.00	1.6	18.0	1.00	1.6	1	LW
HJGYG2	15.7	-0.73	2.2	15.7	-0.73	2.2	1	HG
J6JRAH	17.1	0.33	3.6	17.1	0.33	3.6	1	LP
JARL9F	11.7	-3.68 X	0.9	11.7	-3.68 X	0.9	1	XX
K3VEBC	17.7	0.79	3.6	17.7	0.79	3.6	1	TL
KMAXAQ	15.2	-1.12	1.5	15.2	-1.12	1.5	1	LP
LVBM8S	16.5	-0.14	3.8	16.5	-0.14	3.8	1	GA
PGJ644	16.7	0.03	2.8	16.7	0.03	2.8	1	LA
RPHL8M	16.5	-0.09	2.7	16.5	-0.09	2.7	1	LA
RSCXV1	18.4	1.30	5.8	18.4	1.30	5.8	1	XX
TWY2QW	14.8	-1.36	3.1	14.8	-1.36	3.1	1	GS
X1P9L7	15.8	-0.63	3.1	15.8	-0.63	3.1	1	XX

Consensus (All Labs) Results

Month Mean	16.66	Grand Mean	16.66
Avg SDr	3.15	Avg SDr	3.15
SD btwn Labs	1.35	SD btwn Labs	1.35
Labs Incd	15	Labs Incd	15

Instrument Code List as Reported by the Labs

(GA) - Gurley Precision #4340 Automatic Densometer

(GG) - Gurley Precision #4320 Densometer

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

(HG) - Technidyne - Hagerty Model #1

(LA) - L & W Autoline

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

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

(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
18U8SD	61.5 H	No Data	No Data	No Data	61.5	-0.93	5.0	0.0 L	61.5	-0.86	5.0	0.0 L	1	XX
1CJKYP	62.3	60.7	61.9	61.9	61.7	-0.80	2.9	0.7	60.9	-1.24	3.2	1.6	16	LZ
1DRMLV	63.5	61.0	59.4 *	60.5	61.1	-1.19	3.5	1.8	62.7	-0.11	3.2	1.9	16	TD
1JPLAX	62.8	63.1	63.4	63.0	63.1	0.08	2.5	0.3 L	63.1	0.20	2.9	1.2	16	LC
53S6TZ	67.5	67.1 *	65.5	63.6	65.9	1.92	3.6	1.8	66.4	2.33 *	3.2	1.1	16	EM
5PKEJP	63.5	63.1	63.2	62.0	63.0	0.00	3.2	0.7	63.6	0.49	3.2	1.4	16	LC
5Z613W	69.8	71.2 X	64.7	No Data	68.5	3.61 X	2.5	3.4 H	66.7	2.51 *	2.5	2.8	14	LC
6H9J5D	64.1	61.6	63.8	63.1	63.1	0.12	3.8	1.1	63.3	0.33	3.5	1.4	16	LC
6MZCJ1	63.7	62.0	62.4	61.8	62.5	-0.31	2.7	0.9	62.9	0.06	2.7	0.8	16	LD
76C2YC	60.1	61.6 L	57.6 X	58.5	59.5	-2.25 *	3.2	1.7	59.7	-2.05 *	2.8	1.3	16	LX
853MHA	64.5 H	60.9 H	No Data	No Data	62.7	-0.15	6.3	2.5	67.6	3.09 X	5.3	4.6 H	12	LZ
89936K	66.5	65.5	65.9	62.4	65.1	1.37	2.9	1.8	63.5	0.44	3.5	1.9	16	LC
ACQWQR	62.6	61.5	62.8	No Data	62.3	-0.42	2.7	0.7	63.0	0.09	2.6	1.2	15	LC
AYGMV2	61.2	62.7	62.8	63.0	62.4	-0.33	3.1	0.9	62.3	-0.35	2.8	1.3	12	LD
C6P515	61.6	62.1	62.8	63.8	62.6	-0.23	2.9	0.9	62.2	-0.38	2.3	0.9	16	LC
C8CBAN	56.8 *	59.2	62.2	66.8	61.2	-1.10	3.4	4.3 H	60.9	-1.25	3.5	2.6	16	MB
DYL41W	61.7	59.8	63.4	59.8	61.2	-1.14	2.3	1.7	61.3	-0.96	2.1	1.4	16	LC
E13Q44	63.4	62.3	62.3	64.2	63.0	0.06	3.8	0.9	61.1	-1.11	4.1	2.6	12	LC
EB3RJN	65.1	65.3	66.0	65.6 L	65.5	1.64	2.6	0.4	65.8	1.90	2.3	0.9	16	LD
FF6N9U	67.6	65.9	65.1	64.3	65.7	1.79	3.4	1.4	62.1	-0.44	3.3	2.8	15	TM
FQ9C3B	65.7	61.8	64.8	65.6	64.5	0.99	3.2	1.8	64.4	1.04	3.1	2.1	16	XX
FSTKRD	61.0	61.6	63.2	63.9	62.4	-0.34	2.0	1.4	62.2	-0.43	2.4	1.0	16	LD
G2SSVB	63.8 H	63.9	62.8	64.2	63.7	0.46	3.6	0.6	63.2	0.26	3.1	1.1	15	LC
GEE9XA	66.4	65.3	65.1	66.4	65.8	1.84	3.1	0.7	63.5	0.43	3.3	1.9	16	LC
GHNXHC	63.2	61.2	62.2	60.8	61.9	-0.71	3.0	1.1	62.9	0.01	3.3	1.0	16	LC
GSKMSF	70.6 *	70.5 X	71.1 X	70.7 *	70.7	5.01 X	4.0	0.3 L	62.8	-0.01	3.9	5.1 H	16	MB
L1NEUC	61.4	62.8 L	62.1	62.3	62.2	-0.52	1.7	0.6	62.8	0.00	2.2	0.9	16	TA
N3MV2L	61.5	63.0	61.0	61.0	61.6	-0.86	3.0	1.0	61.4	-0.92	2.5	1.1	16	TB
R18H7Z	65.0	63.7 L	60.8	62.7	63.0	0.06	3.2	1.8	63.7	0.57	3.1	1.4	16	LD
R2EUNQ	63.1	62.0	66.0	65.1	64.1	0.72	2.9	1.8	64.8	1.26	3.0	1.4	16	LZ
RVU8WB	64.1	61.0 H	61.6	60.6	61.8	-0.74	4.8	1.6	62.8	-0.03	4.1	2.6	16	LC
TLZWM3	67.9	66.0	62.3	No Data	65.4	1.58	2.9	2.8	62.9	0.03	3.3	2.3	15	LC
TWJEBT	63.7	62.9	61.8	62.7	62.8	-0.12	2.4	0.8	62.9	0.02	2.7	1.8	16	LC
UCPYPA	62.4 L	62.5	63.9	62.2	62.7	-0.13	1.9	0.8	61.2	-1.07	2.0	1.3	16	EM

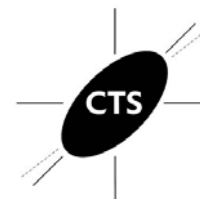


WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	
V6SKKU	66.0	59.5	64.2	68.0	64.4	0.94	3.0	3.6 H	65.3	1.63	3.2	2.3	16	LZ
V8FWJZ	59.3	62.2	61.5	64.4	61.9	-0.71	2.5	2.1	60.6	-1.46	3.6	1.7	16	LC
W2YKEY	61.1	62.1	62.8	60.2	61.6	-0.90	2.5	1.1	61.2	-1.08	2.9	1.2	16	TD
WAVT3G	60.7	62.6	60.7	61.6	61.4	-1.00	2.7	0.9	63.5	0.46	2.9	2.2	16	LC
XC3G6D	63.7	66.1	65.8	63.9	64.9	1.25	2.1	1.2	61.6	-0.77	2.5	2.5	15	LC
XRE49F	69.6	69.0 X	70.6 X	69.6 *	69.7	4.35 X	3.7	0.7	68.4	3.59 X	3.7	1.2	16	LD
XSY257	61.7	61.0	65.8	63.7	63.1	0.07	2.6	2.2	62.9	0.04	2.5	1.3	16	LC
Y9DDSC	55.4 *	76.8 X	76.3 X	71.1 *	69.9	4.47 X	3.6	10.0 H	63.5	0.43	3.7	7.7 H	16	LC

Consensus (All Labs) Results									
Wk Mean	63.50	62.62	63.22	63.65	Month Mean	62.95	Grand Mean	62.83	
Avg SDr	3.05	3.29	2.86	3.24	Avg SDr	3.19	Avg SDr	3.11	
SD btwn Labs	3.15	1.92	1.71	2.87	SD btwn Labs	1.55	SD btwn Labs	1.55	
Labs Includ	42	37	36	37	SD btwn Wks	1.66	SD btwn Wks	2.24	
Labs Exclud	0	4	4	0	Labs Includ	38	Labs Includ	40	
Labs not rcvd	0	1	2	5					

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					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wk	Mean	CPV	SDr	SD Wk	Wks	Inst
4J49WE	71.9 L	71.1	71.7	72.3	71.7	-0.33	2.4	0.5	71.9	-0.29	1.9	1.0	15	LC
ALLUJK	72.3	71.4	70.0	71.0	71.2	-0.46	2.7	0.9	70.6	-0.59	2.3	0.8	16	XX
B9MUKS	70.2	68.4	72.9	68.0	69.9	-0.76	2.5	2.2	69.4	-0.87	2.8	6.9 H	16	XX
GTTNQ8	72.4	70.2	72.6	72.7	71.9	-0.28	2.8	1.2	73.1	0.00	2.4	1.7	16	TD
JXQEGA	79.6	79.6	78.7	80.3	79.6	1.50	2.8	0.7	79.8	1.55	2.6	0.8	16	LD
KZNNYK	68.8	68.6 L	70.8	69.4 L	69.4	-0.88	1.6	1.0	68.8	-1.01	1.7	1.0	16	XX
MFKUP5	78.3	79.2	80.2	77.9	78.9	1.34	2.3	1.0	79.4	1.44	2.4	1.0	16	XX
NUXUQN	78.4	80.1	79.7	77.1	78.8	1.33	2.5	1.4	77.0	0.89	2.6	1.9	15	LZ
PG914M	70.4 L	73.2 L	72.5 L	72.4 L	72.1	-0.24	1.1	1.2	72.1	-0.24	1.1	2.5	16	XX
R1N8CS	67.5 H	62.1 *H	64.7 *H	61.8 H	64.0	-2.14 *	6.4	2.7	67.1	-1.41	4.8	4.2	12	LC
RT4T3P	69.2	69.0	69.8	67.5	68.9	-1.00	2.2	1.0	65.8	-1.71	2.6	2.7	16	LZ
S1ZSCA	71.4	71.1 L	69.7 L	70.3 L	70.6	-0.59	1.3	0.8	69.5	-0.84	1.8	1.1	16	LD
TEQQLB	79.6	79.9	73.3	74.1	76.7	0.84	2.4	3.5	77.8	1.08	2.4	2.0	16	LC
VC98JH	72.9	73.8	74.3	74.4	73.8	0.16	2.9	0.7	73.1	0.00	2.9	8.6 H	12	LD
VE2M5U	76.7	73.5	75.0	73.5	74.7	0.36	2.7	1.5	74.3	0.28	2.8	1.4	16	LC
VERRW9	79.1	78.4	78.0	No Data	78.5	1.25	2.8	0.6	78.1	1.15	3.0	1.3	15	MB
VNH51F	75.6	76.2	75.7	63.5 H	72.7	-0.09	4.4	6.2 H	75.5	0.54	3.1	3.4	16	TB

Consensus (All Labs) Results

Wk Mean	73.78	73.28	73.50	71.64	Month Mean	73.15	Grand Mean	73.13
Avg SDr	2.69	2.78	2.70	3.55	Avg SDr	2.94	Avg SDr	2.65
SD btwn Labs	4.14	5.08	4.09	4.92	SD btwn Labs	4.27	SD btwn Labs	4.32
Labs Includ	17	17	17	16	SD btwn Wks	2.11	SD btwn Wks	3.29
Labs Exclud	0	0	0	0	Labs Includ	17	Labs Includ	17
Labs not rcvd	0	0	0	1				

Instrument Code List as Reported by the Labs

(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

(LD) - L&W Crush Tester 248

(MB) - Messmer Buchel K440

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

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	
131FB4	41.3	42.2	41.4	42.2	41.8	0.50	2.0	0.5	41.6	-0.12	1.7	0.5	16	LC
62Q8RX	38.0*	37.3*	43.2	41.0	39.9	-1.07	1.9	2.7	41.4	-0.22	2.7	3.0	16	LC
7PYX16	41.7	67.5XH	46.6*	42.8	49.6	6.90X	3.7	12.1 H	45.5	2.06*	2.8	6.2 H	16	LZ
BNN7GY	43.0	41.3	41.5	41.5	41.8	0.54	2.4	0.8	41.3	-0.28	2.9	1.1	16	TB
EWZGKF	34.2X	42.1	41.3	45.0X	40.7	-0.42	2.9	4.6 H	39.4	-1.33	3.7	2.4	16	LC
G6VFX6	42.1	39.9	39.3	39.4	40.2	-0.83	1.6	1.3	40.6	-0.68	1.9	1.0	16	EN
H1TFM9	42.6	42.7	42.9	40.8	42.2	0.87	2.1	1.0	42.0	0.14	2.0	0.9	16	LC
HSGQ9A	40.8H	38.9	41.1H	41.0	40.4	-0.60	3.4	1.0	40.7	-0.58	3.3	1.0	15	LC
J2VP5Z	38.6	39.1	38.1	40.1	39.0	-1.80	1.5	0.9	37.9	-2.14*	1.6	1.2	16	WK
J6DVQ6	42.7	40.7	41.5L	40.6	41.4	0.15	1.5	1.0	41.1	-0.38	2.1	1.1	16	TB
JWHYLQ	41.1	40.5	42.5	40.4	41.1	-0.06	2.2	1.0	41.7	-0.02	1.6	1.2	16	LC
K5LMNN	40.4	40.2	40.9	39.7	40.3	-0.71	2.0	0.5	40.7	-0.58	2.2	0.7	16	LD
KXFLL1	42.6	41.5	42.2	41.7	42.0	0.68	3.0	0.5	43.1	0.76	2.7	1.4	16	LC
LTBWD5	43.7	43.1	44.7	42.0	43.4	1.79	2.0	1.1	44.5	1.50	2.3	1.1	16	LZ
N2GSX9	40.5	39.3	39.9	40.8	40.1	-0.88	2.2	0.7	42.1	0.17	2.0	1.4	16	TD
QEUU5X	42.9	41.6	42.0	42.7	42.3	0.91	1.7	0.6	41.9	0.10	2.1	1.0	16	LC
R1HEDD	40.5	40.2	38.5	41.9	40.3	-0.73	1.9	1.4	42.1	0.18	2.2	1.8	16	MB
XS8RRL	43.3	43.1	No Data	No Data	43.2	1.67	3.2	0.2 L	44.3	1.42	2.8	1.4	12	MZ

Consensus (All Labs) Results

Wk Mean	41.51	40.81	41.62	41.15	Month Mean	41.17	Grand Mean	41.77
Avg SDr	2.43	2.38	2.16	2.14	Avg SDr	2.28	Avg SDr	2.43
SD btwn Labs	1.61	1.62	2.12	1.01	SD btwn Labs	1.23	SD btwn Labs	1.79
Labs Includ	17	17	17	16	SD btwn Wks	1.54	SD btwn Wks	2.01
Labs Exclud	1	1	0	1	Labs Includ	17	Labs Includ	18
Labs not rcvd	0	0	1	1				

Instrument Code List as Reported by the Labs

(EN) - Emerson 2200 Series

(LD) - L&W Crush Tester 248

(MB) - Messmer Buchel K440

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

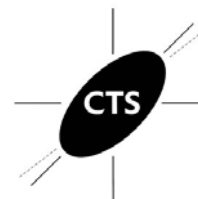
(WK) - Zwick Z005 Crush Tester

(LC) - L & W Crush Tester 48

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

(MZ) - Messmer Buchel (model not specified)

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



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	
9T59TP	15.2	14.8	14.6	14.6	14.8	0.51	1.2	0.3	14.5	-0.02	1.2	0.4	16	LW
AKB7DY	14.6	15.1	14.0	14.4	14.5	0.17	1.2	0.4	14.5	-0.16	1.1	0.3	16	XX
H86ZWC	14.9	15.1	15.8	No Data	15.3	1.08	1.2	0.5	14.5	0.24	1.1	0.7	15	LW
KX3T45	14.6	14.3	14.7	14.6	14.6	0.24	1.3	0.2	14.5	-0.21	1.1	0.2	16	LU
MHUTAZ	15.0	15.1	15.0	14.4	14.9	0.60	1.2	0.3	15.1	6.36X	1.1	0.3	16	LU
QTUVKK	14.7	14.4	14.8	14.6	14.6	0.30	1.1	0.2	14.4	-0.92	1.1	0.5	16	LW
WNHYCY	13.2*	12.1*L	13.2	12.7	12.8	-1.85	0.9	0.5	13.4	-12.56X	1.1	1.1 H	16	LZ
XS1AAT	14.0	13.3	11.9*	13.1	13.1	-1.54	1.5	0.9	14.4	-0.96	1.2	1.1 H	16	LW
ZKSP49	14.7	15.5	14.2	14.8	14.8	0.50	1.2	0.5	14.7	2.03*	1.2	0.3	16	XX

Consensus (All Labs) Results											
Wk Mean	14.53	14.41	14.24	14.15	Month Mean	14.37				Grand Mean	14.52
Avg SDr	1.15	1.12	1.20	1.35	Avg SDr	1.20				Avg SDr	1.14
SD btwn Labs	0.63	1.07	1.15	0.80	SD btwn Labs	0.85				SD btwn Labs	0.09
Labs Includ	9	9	9	8	SD btwn Wks	0.47				SD btwn Wks	0.58
Labs Exclud	0	0	0	0	Labs Includ	9				Labs Includ	7
Labs not rcvd	0	0	0	1							

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