



Collaborative Testing Services, Inc. Containerboard Interlaboratory Testing Program

Participant Summary Report #546 (C) - March 2015 2015

[Introduction to the Containerboard Program](#)

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

Analysis	Sample Lot	Analysis Name
201	BOX9	Box Compression Strength, Corrugated Boxes
202	ECT8	Edgewise Compressive Strength, Wax (T811), Corrugated board
203	ECT8	Edgewise Compressive Strength by Clamp (T839), Corrugated board
205	42B4	Mullen Burst of Linerboard, 42 lb Linerboard
206	69C2	Mullen Burst of Linerboard, 69 lb Linerboard
215	42B4	Ring Crush of Linerboard, Rigid Platen Type, 42 lb Linerboard
216	69C2	Ring Crush of Linerboard, Rigid Platen Type, 69 lb Linerboard
223	42B4	STFI of Linerboard, 42 lb Linerboard
224	69C2	STFI of Linerboard, 69 lb Linerboard
228	69C	Roughness - Stylus Method, 69 lb Linerboard
231	36Z	Internal Bond Strength, Linerboard, 36 lb Linerboard
234	36Z	Coefficient of Static Friction - Inclined Plane, 36 lb Linerboard
237	36Z	Air Resistance - Gurley Method, Linerboard, 36 lb Linerboard
240	CM73	Flat Crush Strength (CMT) of Medium, 26 lb Corrugating Medium
250	CM73	Fluted Crush of Medium, 26 lb Corrugating Medium
255	CM73	Ring Crush of Medium, 26 lb Corrugating Medium
261	CM73	STFI of Medium, 26 lb Corrugating Medium

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 80 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	36Z1	June 2010 - December 2011
	36Z2	February 2012 - Current
42# Linerboard	42B2	June 2012 - April 2013
	42B3	May 2013 - Current
69# Linerboard	69A2	January 2013 - September 2013
	69C1	November 2013 - Current
26# Corrugating Medium	CM73	December 2012 - Current

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 cycle 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 Includ - The number of laboratory Means included in the Wk Mean for that week.
- Labs Exclud - 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 CPV - For each laboratory, the average of all the weekly Means reported for this month.
- **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 Wk - 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 btwn Group - For the current month, the standard deviation of the laboratory Means within the group about the Month Mean, excluding those laboratories flagged with an 'X'.
- SD btwn Wks - For the current month, the average of the laboratory between week standard deviations (SD Wks) for all

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 Wk	- 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.
Inst	- The two letter instrument code. Codes are summarized at the bottom of the last analysis page.

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 btwn Wks	- For the cumulative period, the average of the laboratory between week standard deviations for all the participants.

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 recommended. |
| * | 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). |

Containerboard Interlaboratory Testing Program
Analysis 201

Top to Bottom Box Compression Strength, Corrugated Boxes - BOX9
TAPPI Official Test Method T804



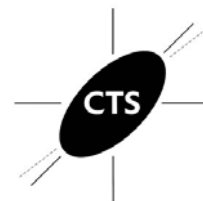
WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
2FV2VA	879.4	0.46	64.5	862.2	0.09	40.5	3	LM
3TTP3U	866.1	0.24	33.5	847.6	-0.13	54.2	3	ER
3WXBX7	828.8	-0.39	34.4	829.7	-0.40	52.2	3	ER
4LUH67	758.2	-1.57	71.6	755.6	-1.51	57.8	3	ES
6GCMT2	806.2	-0.77	78.0	773.5	-1.24	53.3	3	LS
6L9BCT	806.9	-0.75	37.7	802.2	-0.81	34.5	3	EX
6PB6E6	807.4	-0.75	50.8	853.3	-0.05	73.1	3	ER
AJ4ADR	947.9	1.61	28.5	918.3	0.92	28.9	3	TE
AVVX87	773.8	-1.31	36.0	812.0	-0.66	79.3	3	LL
B62ZAH	862.6	0.18	25.8	789.8	-1.00	31.7	3	LL
EQQQVJ	884.6	0.55	85.9	837.2	-0.29	53.0	3	ER
F7ZY9R	930.2	1.31	30.2	977.7	1.81	42.5	2	EX
KNGUQF	869.8	0.30	96.7	925.3	1.03	73.0	3	LH
LEDUYT	809.0	-0.72	54.1	838.3	-0.27	60.0	3	LG
M7WMRN	860.8	0.15	37.2	890.2	0.50	32.8	3	ER
N2XLCR	753.5	-1.65	57.1	761.1	-1.42	52.3	3	LM
TH87T7	880.8	0.48	14.6	901.2	0.67	25.8	2	LG
VR7H36	921.6	1.17	29.1	938.5	1.23	33.2	3	TB
Y7WLW7	938.0	1.44	62.9	959.3	1.54	55.1	3	LH

Consensus (All Labs) Results			
Month Mean	851.88	Grand Mean	856.47
Avg SDr	53.64	Avg SDr	51.46
SD btwn Labs	59.64	SD btwn Labs	66.99
Labs Incd	19	Labs Incd	19

Consensus By Method

Test Method	Group Mean	SD btwn Group	Difference from Grand Mean	Labs Included
Hot melt adhesive sealing	858.10	63.67	6.22	4
Clip sealing	829.46	48.10	22.42	12
Tape sealing	933.25	13.43	81.37	3

Containerboard Interlaboratory Testing Program
Analysis 201
Top to Bottom Box Compression Strength, Corrugated Boxes - BOX9
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

(LS) - Lansmont Squeezer

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

(TE) - Testometric M500 - 25 KN

Containerboard Interlaboratory Testing Program
 Analysis 202
Edgewise Compressive Strength, by T811, Corrugated board - ECT8
 TAPPI T811



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
3TTP3U	66.7	1.65	2.1	66.8	1.77	1.8	2	TD
6GCMT2	57.3	-0.17	1.7	56.1	-0.46	1.6	4	LC
9PCDQK	56.0	-0.41	2.6	56.6	-0.36	4.7	4	XX
EQQQVJ	57.6	-0.11	1.9	57.5	-0.17	2.1	4	EN
LEDUYT	60.3	0.42	3.6	60.1	0.38	3.2	4	LC
Y7WLW7	51.0	-1.38	2.1	52.7	-1.16	2.1	4	TC

Consensus (All Labs) Results			
Month Mean	58.14	Grand Mean	58.31
Avg SDr	2.44	Avg SDr	2.79
SD btwn Labs	5.18	SD btwn Labs	4.80
Labs Incd	6	Labs Incd	6

Instrument Code List as Reported by the Labs

(EN) - Emerson 2200

(LC) - L&W Crush Tester 48

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

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

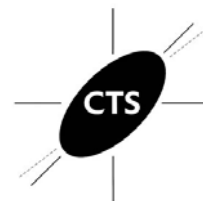
(XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
Analysis 203
Edgewise Compressive Strength by T839, Corrugated board - ECT8
TAPPI T839



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
2D7RMU	63.5	1.10	2.7	62.9	1.13	2.2	4	LD
2FV2VA	62.2	0.67	1.9	61.1	0.46	1.9	3	TC
3WXBX7	57.6	-0.87	1.9	59.1	-0.27	2.1	4	LD
4LUH67	57.6	-0.87	2.0	57.9	-0.70	2.9	4	LD
6GCMT2	59.3	-0.30	2.0	58.2	-0.60	2.5	4	LC
6L9BCT	62.8	0.86	2.5	59.5	-0.10	2.1	4	TL
6ND2E3	59.1	-0.37	2.4	77.1	6.35 X	4.7	4	LC
6PB6E6	60.4	0.06	3.2	60.8	0.38	2.8	4	EN
7TJU9X	56.9	-1.10	1.4	55.7	-1.49	2.3	3	TD
8EZQZ9	60.9	0.23	0.9	61.1	0.48	2.0	4	TM
9PCFD4	62.0	0.61	1.4	61.5	0.62	2.3	4	TB
AVVX87	60.3	0.04	1.9	62.1	0.86	3.0	3	LC
B62ZAH	59.4	-0.27	1.6	62.3	0.92	1.6	4	BU
BLMNGR	57.1	-1.03	2.8	55.7	-1.50	3.1	4	LC
BYYTRU	59.0	-0.41	1.4	58.2	-0.58	1.7	4	TG
CBJVNQ	62.0	0.59	0.8	61.4	0.60	1.7	4	LC
EQQQVJ	59.8	-0.12	1.7	59.2	-0.23	2.2	4	EN
F7ZY9R	65.8	1.87	2.6	64.0	1.53	2.1	4	CT
FQP7PV	61.0	0.27	1.7	59.9	0.04	2.2	4	LC
GKDRCN	58.2	-0.67	2.0	56.3	-1.29	3.4	4	LD
H39KXM	54.5	-1.91	1.3	54.4	-1.98	1.5	4	LC
KNGUQF	65.0	1.61	3.4	63.9	1.49	4.3	4	EM
LEDUYT	64.0	1.28	2.4	63.6	1.41	2.9	4	LC
M7WMRN	54.9	-1.77	1.5	54.0	-2.11 *	1.5	4	EM
MX4867	66.8	2.20 *	1.3	63.2	1.25	1.4	4	LC
N2XLCR	57.4	-0.92	1.4	57.1	-1.00	1.5	4	EM
PYPX4F	59.4	-0.27	1.8	58.9	-0.34	2.0	2	EX
RGXUJG	57.2	-1.00	1.5	58.0	-0.67	2.9	4	LD
TH87T7	55.7	-1.49	3.2	58.6	-0.45	3.4	3	EM
VQFDQL	61.5	0.44	3.1	60.7	0.32	2.8	3	LD
VR7H36	62.0	0.60	0.8	60.2	0.14	0.8	4	LC
WUPUF2	63.2	1.01	2.4	63.2	1.25	2.5	4	TX
Y7WLW7	60.2	-0.01	1.1	61.4	0.60	1.0	4	TC
YBRD63	60.0	-0.07	2.7	59.4	-0.14	2.9	4	TB

Containerboard Interlaboratory Testing Program
 Analysis 203
Edgewise Compressive Strength by T839, Corrugated board - ECT8
 TAPPI T839



Consensus (All Labs) Results

Month Mean	60.20	Grand Mean	59.80
Avg SDR	2.09	Avg SDR	2.40
SD btwn Labs	3.00	SD btwn Labs	2.73
Labs Incl	34	Labs Incl	33

Instrument Code List as Reported by the Labs

(BU) - Buchel Digital Crush Tester	(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	(TB) - TMI Monitor/Compression Tester, Model 17-70
(TC) - TMI Monitor/Compression Tester, Model 17-37	(TD) - TMI Digital Crush Tester, Model 17-09
(TG) - TMI Digital Crush Tester, 17-76	(TL) - Tech-Lab Systems Compression
(TM) - TMI/Hinde & Dausch	(TX) - TMI (model not specified)

Containerboard Interlaboratory Testing Program
 Analysis 205
Bursting Strength (Mullen), 42 lb Linerboard - 42B4
 TAPPI Official Test Method T807



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks	Wks	Inst
39AGA9	105.2	104.5	106.2	107.3	105.8	0.37	9.8	1.2	103.9	-0.04	8.1	2.5	16	LC
3WXBX7	104.0	95.0	98.0	96.3	98.3	-1.51	7.7	4.0	93.8	-2.57 *	10.1	3.9	16	AH
4LUH67	113.2 *	109.0	105.3	107.1	108.7	1.09	9.9	3.4	107.7	0.91	10.4	2.6	16	LA
4NJPP3	109.5	106.6	113.4	111.3	110.2	1.47	10.1	2.9	109.8	1.44	10.2	2.7	16	LA
6GCMT2	101.0	103.1	101.0	102.4	101.9	-0.62	7.5	1.1	102.5	-0.39	10.0	6.7 H	16	AH
6ND2E3	107.7	102.9	105.3	106.4	105.5	0.30	9.0	2.0	105.1	0.24	10.4	3.4	16	LA
6XKGMV	100.2	93.7 *	103.1	103.3	100.1	-1.07	11.7	4.5	100.6	-0.87	11.1	5.0	15	LC
7KT93Z	106.0 L	108.2 L	103.9	110.4	107.1	0.70	6.7	2.8	105.4	0.32	7.6	3.0	16	LC
8CUYF8	107.6	112.3	107.7	105.9	108.4	1.02	8.0	2.7	109.6	1.37	7.9	4.4	16	TB
8HYVZ8	100.2 H	106.9	101.2	104.6	103.2	-0.28	11.1	3.1	103.8	-0.06	11.0	2.7	16	LA
9DHYN3	106.2	106.0	106.2	107.3	106.4	0.52	10.1	0.6	105.6	0.37	13.2	2.5	16	LZ
9PCFD4	107.2	99.8	96.8	101.3	101.3	-0.77	9.7	4.3	99.1	-1.24	10.2	3.2	15	LA
A7JMC7	100.4	103.0	100.5	98.5	100.6	-0.94	10.2	1.9	103.2	-0.22	11.0	4.2	16	AX
ABA2VL	125.6 X	129.7 X	129.0 X	128.7 X	128.3	6.01 X	5.7	1.8	121.7	4.41 X	7.5	5.7	16	AH
AHC7TW	98.4	101.3	98.6	99.8	99.5	-1.20	11.2	1.3	104.7	0.16	9.3	4.1	16	LA
B23R22	103.8 L	102.9 L	103.2 L	102.4 L	103.1	-0.32	3.4	0.6	104.0	-0.03	4.4	1.4	16	LJ
BE7776	105.2	102.5	103.2	99.7	102.7	-0.42	11.1	2.3	102.6	-0.36	10.7	2.8	16	LA
BMHA9X	107.2	109.4	109.0	103.2	107.2	0.72	11.8	2.8	107.7	0.90	10.9	3.3	16	LA
BRB9MT	103.4	114.4 *	109.4	108.5	108.9	1.15	9.6	4.5	107.7	0.90	10.4	3.2	16	LJ
CANAUZ	104.6	111.0	104.8	104.4	106.2	0.47	7.8	3.2	108.3	1.05	8.7	2.7	16	LC
DJBQZF	103.2	106.8	106.0	107.0	105.8	0.36	5.9	1.8	105.8	0.41	5.9	1.8	4	RE
F7ZY9R	106.3	98.5	101.6 H	111.9 H	104.6	0.06	14.4	5.8	106.0	0.47	14.4	4.8	16	XX
FKHRXX	96.4	95.2	94.9 *	104.2 L	97.7	-1.67	6.2	4.4	97.8	-1.57	6.7	2.3	16	LA
FQP7PV	102.4	101.7	101.4	97.3	100.7	-0.91	7.1	2.3	97.9	-1.55	8.8	2.9	16	LA
G7TAHY	105.5	104.9	103.9	106.5	105.2	0.22	6.5	1.1	105.8	0.42	24.0	7.5 H	16	LC
G9KYBT	98.9	99.8	100.4	97.2	99.1	-1.33	10.0	1.4	100.3	-0.96	9.9	1.7	16	LC
GKDRCN	109.7	108.5	109.8	106.8	108.7	1.10	8.5	1.4	104.0	-0.04	9.4	4.2	16	AA
HCFGGJ	104.8	103.6	106.4	104.7	104.9	0.14	6.9	1.2	104.5	0.09	6.8	1.4	16	AH
HWMHYW	105.7	103.8	105.6	102.0	104.3	-0.01	9.0	1.7	106.4	0.57	10.3	2.3	16	LC
KBJDAU	103.2	105.8 L	107.6	103.6	105.0	0.18	6.7	2.0	107.6	0.87	7.4	3.7	16	LB
L72KNU	110.6	107.1	110.9	No DATA	109.5	1.30	9.9	2.1	106.5	0.59	10.0	3.1	15	LA
LEDUYT	106.5	104.2 H	105.9	105.5	105.5	0.30	12.9	1.0	106.3	0.55	11.2	2.8	16	LZ
MQGJ9E	102.2	101.5	110.0	109.6	105.8	0.37	11.5	4.6	103.9	-0.06	12.6	4.2	16	TP
N2XLCR	97.3	96.3 L	99.0	97.2 L	97.4	-1.73	5.3	1.1	98.4	-1.42	6.2	2.1	16	AH
Q4FHTG	101.5	98.4	100.0	96.7	99.1	-1.31	8.9	2.1	101.5	-0.64	10.5	2.8	16	TB

Containerboard Interlaboratory Testing Program
 Analysis 205
Bursting Strength (Mullen), 42 lb Linerboard - 42B4
 TAPPI Official Test Method T807



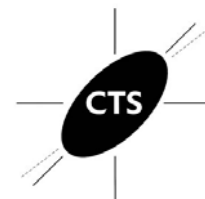
WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks	Wks	
QJRYJJ	103.3	106.2	105.5	No DATA	105.0	0.17	11.2	1.5	104.7	0.15	10.1	2.5	15	AH
TM3XYH	107.3	115.9 *	112.9	117.0 *	113.3	2.25 *	4.9	4.3	112.8	2.19 *	10.6	5.0	16	LA
VQFDQL	95.0 *	99.2	95.3 *	94.2	95.9	-2.11 *	7.0	2.2	99.2	-1.23	7.0	3.0	12	LA
VY4B9D	105.8	105.2	105.9	105.1	105.5	0.30	5.8	0.4 L	107.0	0.74	7.8	2.0	16	LA
VZYVYJ	105.3	99.5	103.5	98.4	101.7	-0.67	9.1	3.3	101.0	-0.77	9.0	2.4	16	LC
WCAKDE	96.8	108.5	101.6	104.2	102.8	-0.39	10.9	4.9	103.5	-0.16	10.7	3.0	16	TB
WLXJ4K	100.9	106.2	106.2	99.9	103.3	-0.26	11.8	3.4	103.1	-0.24	10.2	2.8	16	AH
WM8LR6	97.3	95.1	103.0	100.5	99.0	-1.35	8.1	3.5	95.0	-2.28 *	8.2	5.0	16	AX
WZT2TH	105.0	105.7	102.4	97.6	102.7	-0.42	8.4	3.7	100.0	-1.03	9.1	3.3	16	LC
XPUM9C	106.2	99.0	111.2	110.0	106.6	0.56	9.5	5.5	105.3	0.31	9.7	3.0	16	LC
XXNL7D	117.5 X	110.1	112.2	113.4	113.3	2.26 *	11.3	3.1	112.7	2.16 *	12.0	2.8	16	TB
Y7WLW7	109.5	111.0	105.8	104.5	107.7	0.84	10.3	3.1	107.6	0.89	10.5	3.4	16	AA
YT7VAG	105.7	104.8	106.5	108.0 L	106.2	0.48	9.5	1.3	104.0	-0.02	10.4	2.7	16	LA
ZCHY9D	106.2	106.9	110.2	104.0	106.8	0.62	10.5	2.5	102.8	-0.31	9.7	7.3 H	16	LC

Consensus (All Labs) Results									
Wk Mean	104.03	104.20	104.62	104.07	Month Mean	104.33	Grand Mean	104.10	
Avg SDr	9.05	9.40	9.25	9.52	Avg SDr	9.32	Avg SDr	10.27	
SD btwn Labs	4.00	5.10	4.46	4.98	SD btwn Labs	3.98	SD btwn Labs	4.00	
Labs Includ	47	48	48	46	SD btwn Wks	2.95	SD btwn Wks	3.59	
Labs Exclud	2	1	1	1	Labs Includ	48	Labs Includ	48	
Labs not rcvd	0	0	0	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
- (RE) - Regmed/Mullen Tester
- (TP) - Technidyne PROFILE/Plus
- (AH) - Perkins Model AH
- (LA) - L & W Bursting Strength Tester
- (LC) - L & W Autoline
- (LZ) - L & W (model not specified)
- (TB) - TMI Monitor/Burst 1000
- (XX) - Instrument make/model not specified by lab

Containerboard Interlaboratory Testing Program
 Analysis 206
 Bursting Strength (Mullen), 69 lb Linerboard - 69C2
 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 Wks	Mean	CPV	SDr	SD Wks	Wks	
39AGA9	148.2	152.6	151.0	156.4	152.0	-0.71	10.3	3.4	152.0	-0.71	10.3	3.4	4	LC
3WXBX7	144.1	145.5	150.0	149.9	147.4	-1.53	10.3	3.0	147.4	-1.53	10.3	3.0	4	AH
4LUH67	163.3	164.4	159.2	160.7	161.9	1.05	9.9	2.4	161.9	1.05	9.9	2.4	4	LA
4NJPP3	164.1	163.9	171.2 *	162.4	165.4	1.67	10.9	4.0	165.4	1.67	10.9	4.0	4	LA
6GCMT2	151.4	146.6	154.0	151.6	150.9	-0.90	8.1	3.1	150.9	-0.90	8.1	3.1	4	AH
6ND2E3	158.5	153.3	160.2	158.4	157.6	0.28	13.2	3.0	157.6	0.28	13.2	3.0	4	LA
6XKGMV	147.1	142.4 *	152.9	159.8	150.6	-0.96	11.8	7.5	150.6	-0.96	11.8	7.5 H	4	LC
7KT93Z	151.2	153.1	146.0	162.2	153.1	-0.51	10.3	6.8	153.1	-0.51	10.3	6.8	4	LC
8CUYF8	170.3 *	169.3 *	170.0	163.2	168.2	2.16 *	10.3	3.4	168.2	2.16 *	10.3	3.4	4	TB
8HYVZ8	160.6	158.9 H	157.0	158.0	158.6	0.46	13.3	1.6	158.6	0.46	13.3	1.6	4	LA
9DHYN3	152.7	153.9	158.1	159.4	156.0	0.01	13.1	3.2	156.0	0.01	13.1	3.2	4	LZ
9PCFD4	153.0	150.6	147.5	161.1 L	153.1	-0.52	11.3	5.8	153.1	-0.52	11.3	5.8	4	LA
A7JMC7	158.0	156.2	157.1	163.3	158.7	0.47	11.1	3.2	158.7	0.47	11.1	3.2	4	AX
ABA2VL	157.2	154.9	147.0	157.6	154.2	-0.32	6.5	4.9	154.2	-0.32	6.5	4.9	4	AH
AHC7TW	158.8	165.7	149.0	160.7	158.6	0.46	11.3	7.0	158.6	0.46	11.3	7.0	4	LA
B23R22	163.1	158.5 L	157.4 L	159.5	159.6	0.64	5.4	2.5	159.6	0.64	5.4	2.5	4	LJ
BE7776	154.6	155.0	158.9	156.5	156.3	0.05	11.4	1.9	156.3	0.05	11.4	1.9	4	LA
BMHA9X	153.3	165.3	158.8	164.6	160.5	0.79	10.7	5.6	160.5	0.79	10.7	5.6	4	LA
BRB9MT	156.0	159.6	161.2	154.0	157.7	0.30	10.8	3.3	157.7	0.30	10.8	3.3	4	LJ
CANAUZ	153.7	161.7	154.2	150.0	154.9	-0.19	8.7	4.9	154.9	-0.19	8.7	4.9	4	LC
DJBQZF	150.0	154.2	161.8	158.4	156.1	0.02	10.1	5.1	156.1	0.02	10.1	5.1	4	RE
F7ZY9R	166.1	162.1	160.4 H	164.3	163.2	1.28	15.9	2.5	163.2	1.28	15.9	2.5	4	XX
FKHRXX	147.4	146.4	151.0	161.4	151.5	-0.79	9.6	6.8	151.5	-0.79	9.6	6.8	4	LA
FQP7PV	132.2 X	153.7	146.5	146.3 *	144.7	-2.00 *	8.5	9.0	144.7	-2.00 *	8.5	9.0 H	4	LA
G7TAHY	159.6	155.2	150.5	147.3	153.2	-0.50	9.8	5.4	153.2	-0.50	9.8	5.4	4	LC
G9KYBT	146.9	149.5	149.9	149.3	148.9	-1.26	10.5	1.4	148.9	-1.26	10.5	1.4	4	LC
GKDRCN	166.5	154.7	159.5	155.2	159.0	0.53	11.8	5.5	159.0	0.53	11.8	5.5	4	AA
HCFGGJ	155.1	154.3	162.0	152.4	156.0	-0.01	9.2	4.2	156.0	-0.01	9.2	4.2	4	AH
HWMHYW	146.6	157.2	151.0	160.1	153.7	-0.40	9.1	6.1	153.7	-0.40	9.1	6.1	4	LC
KBJDAU	157.0	158.4	165.6	155.3	159.1	0.54	10.2	4.5	159.1	0.54	10.2	4.5	4	LB
L72KNU	156.5	160.0	151.9	No DATA	156.1	0.02	13.1	4.1	156.1	0.02	13.1	4.1	3	LA
LEDUYT	155.6	161.3	154.8	157.0	157.2	0.21	13.0	2.9	157.2	0.21	13.0	2.9	4	LZ
MQGJ9E	156.5 L	150.5	153.3	148.5	152.2	-0.67	5.9	3.5	152.2	-0.67	5.9	3.5	4	TP
N2XLCR	151.7 H	154.5	155.3	158.4	155.0	-0.18	13.3	2.8	155.0	-0.18	13.3	2.8	4	AH
Q4FHTG	149.8	152.0	150.5	155.5	151.9	-0.72	11.5	2.6	151.9	-0.72	11.5	2.6	4	TB

Containerboard Interlaboratory Testing Program
 Analysis 206
 Bursting Strength (Mullen), 69 lb Linerboard - 69C2
 TAPPI Official Test Method T807



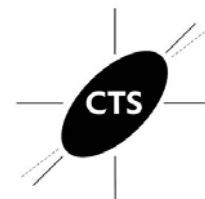
WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks	Wks	
QJRYJJ	154.4	165.9	157.8	No DATA	159.4	0.60	12.9	5.9	159.4	0.60	12.9	5.9	3	AH
TM3XYH	172.1 *	164.0	174.3 *	164.6	168.8	2.26 *	7.0	5.2	168.8	2.26 *	7.0	5.2	4	LA
VQFDQL	145.2	150.3	155.1	158.2	152.2	-0.67	8.7	5.7	152.2	-0.67	8.7	5.7	4	LA
VY4B9D	170.5 *	165.5	165.9	164.9	166.7	1.90	8.7	2.6	166.7	1.90	8.7	2.6	4	LA
VZYVYJ	161.3	157.4	139.4 *	162.3	155.1	-0.16	10.5	10.7 H	155.1	-0.16	10.5	10.7 H	4	LC
WCAKDE	151.8	145.4	147.1	149.7	148.5	-1.33	10.0	2.8	148.5	-1.33	10.0	2.8	4	TB
WLXJ4K	147.8	151.7	151.5	153.7	151.2	-0.85	12.3	2.5	151.2	-0.85	12.3	2.5	4	AH
WM8LR6	140.7 *	139.5 *	144.0	140.2 X	141.1	-2.64 *	10.5	2.0	141.1	-2.64 *	10.5	2.0	4	AX
WZT2TH	157.8	152.9	153.5	159.3	155.9	-0.02	12.1	3.2	155.9	-0.02	12.1	3.2	4	LC
XPUM9C	162.6	157.1	161.9	160.3	160.5	0.79	12.5	2.4	160.5	0.79	12.5	2.4	4	XX
XXNL7D	165.3	161.7	164.7 H	163.5	163.8	1.38	13.5	1.6	163.8	1.38	13.5	1.6	4	TB
Y7WLW7	155.8 L	149.8	161.3	156.3	155.8	-0.04	8.2	4.7	155.8	-0.04	8.2	4.7	4	AA
YT7VAG	155.2	160.7	164.9	158.3	159.8	0.67	10.5	4.1	159.8	0.67	10.5	4.1	4	LA
ZCHY9D	150.3	155.5	155.1	148.6	152.4	-0.64	10.1	3.4	152.4	-0.64	10.1	3.4	4	LC

Consensus (All Labs) Results

Wk Mean	155.74	155.77	155.94	157.35	Month Mean	156.00	Grand Mean	156.00
Avg SDr	11.14	10.59	10.67	10.53	Avg SDr	10.77	Avg SDr	10.77
SD btwn Labs	7.21	6.57	7.25	5.14	SD btwn Labs	5.64	SD btwn Labs	5.64
Labs Includ	48	49	49	46	SD btwn Wks	4.59	SD btwn Wks	4.59
Labs Exclud	1	0	0	1	Labs Includ	49	Labs Includ	49
Labs not rcvd	0	0	0	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
- (RE) - Regmed/Mullen Tester
- (TP) - Technidyne PROFILE/Plus
- (AH) - Perkins Model AH
- (LA) - L & W Bursting Strength Tester
- (LC) - L & W Autoline
- (LZ) - L & W (model not specified)
- (TB) - TMI Monitor/Burst 1000
- (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 Wks	Mean	CPV	SDr	SD Wks	Wks	
39AGA9	105.8	106.8	107.8	105.3	106.4	1.17	3.6	1.1	106.0	1.02	4.1	1.5	16	LC
3WXBX7	98.5	97.8	95.8	98.1	97.5	-0.81	4.0	1.2	99.5	-0.40	3.9	1.7	16	LD
4NJPP3	102.1	99.5	98.1	98.3	99.5	-0.37	4.8	1.8	99.4	-0.42	4.4	3.1	16	LZ
6GCMT2	100.1	101.2	99.0	102.4	100.7	-0.11	3.6	1.5	100.5	-0.18	3.7	1.2	16	LC
6ND2E3	105.6	97.2	98.3	105.0 H	101.5	0.08	6.4	4.4	100.3	-0.21	6.0	4.1	15	LC
6PB6E6	103.7	100.2	98.9	99.6	100.6	-0.13	3.6	2.1	99.3	-0.43	4.0	2.5	16	EN
6XKGMV	99.2	90.7	97.6	101.1	97.1	-0.90	5.1	4.5	98.9	-0.51	4.8	3.7	15	LD
7DBZGN	98.0 H	98.6	99.4	97.4	98.4	-0.63	6.0	0.8	98.4	-0.63	4.9	2.2	16	TH
7TJU9X	99.3	97.4	99.7 L	93.7 L	97.5	-0.81	2.7	2.7	99.0	-0.51	2.7	2.5	12	TD
83LPN9	86.4 XH	85.8 *	87.8 *	85.3 X	86.3	-3.30 X	5.4	1.1	91.9	-2.04 *	6.4	6.2	16	MB
8CUYF8	106.3	110.8	105.7	106.0	107.2	1.34	4.9	2.4	110.2	1.94	4.9	4.3	16	LX
8HYVZ8	103.5	105.4 L	104.0 L	101.5	103.6	0.54	2.4	1.6	99.7	-0.35	5.2	6.8 H	16	LC
9BTQGM	102.0	96.2	105.2	103.9	101.8	0.14	4.6	4.0	100.3	-0.21	6.5	7.9 H	14	XX
A7JMC7	99.2	100.0	99.0	99.7	99.4	-0.38	3.9	0.4 L	101.1	-0.05	5.4	4.5	16	LC
ABA2VL	107.7	107.2	107.9	106.8	107.4	1.38	2.6	0.5 L	109.0	1.69	3.8	4.3	16	LD
AHC7TW	95.5	94.7	92.9	94.6	94.4	-1.50	3.3	1.1	96.0	-1.15	3.0	2.7	16	LD
AJ4ADR	102.4	102.8	102.2	103.7	102.8	0.36	4.2	0.7	102.1	0.17	3.2	1.3	16	LD
AQ7JKJ	103.7	102.7	103.4	105.6	103.9	0.60	4.5	1.2	103.9	0.56	4.5	1.2	4	TH
B23R22	102.1 L	102.0 L	102.3 L	101.9 L	102.1	0.20	1.6	0.2 L	102.5	0.26	3.2	1.0	16	LD
BE7776	104.7	103.4	100.9 H	109.6	104.7	0.77	8.5	3.7	100.2	-0.24	7.0	10.7 H	16	LC
BRB9MT	101.2	92.1 L	89.6 *	93.5	94.1	-1.57	3.6	5.0	92.7	-1.87	3.5	3.3	16	LC
BYYTRU	104.5	103.6	105.1	105.5	104.7	0.78	4.4	0.8	98.7	-0.57	3.3	4.7	16	TH
CANAUZ	109.1	105.9	106.2	107.1	107.1	1.31	5.0	1.4	105.3	0.87	4.4	3.3	16	TC
DJBQZF	103.9	104.5	104.2	104.3	104.2	0.67	3.3	0.3 L	104.2	0.63	3.3	0.3 L	4	LZ
FKHRXX	95.7	95.1	97.0	100.9	97.2	-0.89	4.1	2.6	98.2	-0.67	3.9	2.2	16	LC
FQKVPH	107.8	95.5	98.3	108.5	102.5	0.30	4.9	6.6 H	102.6	0.28	5.7	5.8	12	LC
FQP7PV	90.8 *	99.5	99.3	99.2	97.2	-0.88	5.8	4.3	96.4	-1.07	4.4	2.9	16	LC
G8PF9R	99.5	97.4	97.1	95.3	97.3	-0.85	3.7	1.7	97.6	-0.80	3.0	2.2	16	LD
G9KYBT	101.1	100.4	98.5	99.2	99.8	-0.31	4.0	1.2	99.9	-0.31	4.1	1.6	16	LC
GKDRCN	100.9	99.2	97.4 L	97.5	98.7	-0.54	2.9	1.7	99.4	-0.41	3.0	1.4	16	LD
KBJDAU	105.7	109.0	106.6	105.5	106.7	1.23	4.4	1.6	102.6	0.28	4.6	3.0	16	LC
KNGUQF	105.6	108.4	104.2	106.4	106.2	1.11	4.2	1.8	107.2	1.27	3.8	2.7	16	EM
LEDUYT	106.3	105.6	103.7 L	102.7	104.6	0.75	2.9	1.7	105.8	0.98	3.0	2.2	16	LC
M7WMRN	96.7	93.6 L	95.5	91.9	94.4	-1.50	3.1	2.1	92.8	-1.85	3.3	1.7	16	EX
M8R7WB	108.0	104.7	104.0	112.0 *H	107.2	1.33	6.4	3.7	106.2	1.07	5.0	5.1	16	MB

Containerboard Interlaboratory Testing Program
 Analysis 215
 Ring Crush, 42 lb Linerboard - 42B4
 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 Wks	Mean	CPV	SDr	SD Wks	Wks	
MQGJ9E	101.1	99.6	98.1	100.7 L	99.9	-0.29	3.3	1.3	99.8	-0.33	3.7	2.1	16	TH
N2XLCR	95.2 L	97.7	95.8	97.0 L	96.4	-1.06	2.1	1.1	98.4	-0.63	2.6	3.2	16	EM
NEKZ6T	97.9	89.4 *H	89.1 *H	87.5 *H	91.0	-2.27 *	7.6	4.7	96.0	-1.15	5.0	3.8	16	LD
Q4FHTG	93.8 H	98.8	104.0	101.3	99.5	-0.38	5.3	4.3	98.5	-0.60	4.3	7.9 H	16	LZ
TH87T7	96.5	102.1	90.3	92.9	95.5	-1.27	4.2	5.1	99.4	-0.40	4.2	6.1	12	EM
TM3XYH	110.1	107.9	102.5	111.6	108.0	1.52	4.8	4.0	107.8	1.40	4.8	2.4	16	LD
VQFDQL	98.2	98.0	97.1 L	98.8	98.0	-0.70	2.9	0.7	99.1	-0.47	2.6	1.8	12	LD
VY4B9D	102.2 L	102.0 L	101.8 L	101.5 L	101.9	0.15	1.7	0.3 L	101.6	0.06	1.8	0.3 L	16	LZ
VZYVYJ	101.9 H	94.9 H	104.3 H	93.4 H	98.6	-0.57	10.4	5.3	101.0	-0.06	9.5	4.6	16	LA
WCAKDE	109.0	108.2	109.9	104.7	107.9	1.50	3.9	2.2	107.4	1.32	4.0	4.0	16	LC
WLXJ4K	121.4 X	122.4 XH	127.3 X	127.4 X	124.6	5.21 X	9.6	3.2	112.7	2.48 *	6.1	7.4 H	16	LC
WM8LR6	110.3	116.8 X	116.4 X	106.9	112.6	2.54 *	4.0	4.8	110.4	1.98	9.2	4.5	16	LZ
WZT2TH	99.4	101.3	101.7	98.9	100.3	-0.19	4.1	1.4	101.3	0.01	3.7	2.2	16	LD
X4UGPD	100.7	100.9	102.0	99.6	100.8	-0.08	2.9	1.0	101.9	0.13	3.5	2.6	16	LD
XXNL7D	96.8	93.5	95.8	99.5	96.4	-1.06	3.5	2.5	96.2	-1.10	4.0	2.4	16	LC
YT7VAG	106.3	102.5	106.2	104.6	104.9	0.83	4.8	1.8	109.3	1.74	4.2	3.2	16	LD
ZCHY9D	97.3	99.0	98.8	99.6	98.7	-0.55	4.0	1.0	98.9	-0.51	4.2	3.3	16	LC

Consensus (All Labs) Results									
Wk Mean	101.85	100.20	100.19	101.24	Month Mean	101.17	Grand Mean	101.29	
Avg SDr	4.11	4.45	4.66	4.94	Avg SDr	4.54	Avg SDr	4.61	
SD btwn Labs	4.52	5.33	5.01	5.21	SD btwn Labs	4.50	SD btwn Labs	4.60	
Labs Includ	50	50	50	50	SD btwn Wks	2.78	SD btwn Wks	4.01	
Labs Exclud	2	2	2	2	Labs Includ	50	Labs Includ	52	
Labs not rcvd	0	0	0	0					

Instrument Code List as Reported by the Labs

- (EM) - Emerson 1200
- (EX) - Emerson (model not specified)
- (LC) - L & W Crush Tester 48
- (LX) - L & W 506
- (MB) - Messmer Buchel K440
- (TD) - TMI Digital Crush Tester, Model 17-09
- (XX) - Instrument make/model not specified by lab
- (EN) - Emerson 2200
- (LA) - L&W Autoline
- (LD) - L&W Crush Tester 248
- (LZ) - L & W Crush Tester (model not specified)
- (TC) - TMI Monitor/Compression Tester, Model 17-37
- (TH) - TMI Compression Tester, Model 17-76

Containerboard Interlaboratory Testing Program
 Analysis 216
 Ring Crush, 69 lb Linerboard - 69C2
 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 Wks	Mean	CPV	SDr	SD Wks	Wks	
39AGA9	145.3	144.7	142.8	141.0	143.5	1.57	3.9	2.0	143.5	1.57	3.9	2.0	4	LC
3WXBX7	134.0	134.2	123.4	131.8	130.8	-0.02	4.4	5.1	130.8	-0.02	4.4	5.1	4	LD
4NJPP3	131.9 H	122.1	132.2	125.4	127.9	-0.39	5.7	5.0	127.9	-0.39	5.7	5.0	4	LZ
6GCMT2	128.9	122.5	132.3 L	122.5	126.6	-0.56	3.7	4.9	126.6	-0.56	3.7	4.9	4	LC
6ND2E3	135.6	133.5	132.5	138.2 H	135.0	0.50	8.6	2.5	135.0	0.50	8.6	2.5	4	LC
6PB6E6	125.3	133.4	123.8 L	120.6	125.8	-0.65	3.2	5.4	125.8	-0.65	3.2	5.4	4	EN
6XKGMV	135.3	126.2	133.7	135.3	132.6	0.21	5.5	4.4	132.6	0.21	5.5	4.4	4	LD
7DBZGN	138.9	134.1	132.8	127.3	133.3	0.29	5.2	4.8	133.3	0.29	5.2	4.8	4	TH
7TJU9X	147.1 L	148.1	148.6 L	149.1 *	148.2	2.17 *	2.0	0.8	148.2	2.17 *	2.0	0.8	4	TD
83LPN9	119.7	118.3	121.7	111.8 *	117.9	-1.65	5.4	4.3	117.9	-1.65	5.4	4.3	4	MB
8CUYF8	146.9	150.8 *	148.6	149.0 *	148.8	2.24 *	3.6	1.6	148.8	2.24 *	3.6	1.6	4	LX
8HYVZ8	126.4	124.0	128.8 L	124.6 L	126.0	-0.63	2.6	2.2	126.0	-0.63	2.6	2.2	4	LC
9BTQGM	No DATA	122.7 H	137.8 L	No DATA	130.3	-0.09	7.1	10.7 H	130.3	-0.09	7.1	10.7 H	2	XX
A7JMC7	125.3	126.3	127.6 L	129.6	127.2	-0.48	4.3	1.9	127.2	-0.48	4.3	1.9	4	LC
ABA2VL	134.2	131.2	137.0	134.3	134.2	0.40	4.7	2.4	134.2	0.40	4.7	2.4	4	LD
AHC7TW	129.0	126.0 L	123.5 L	122.4	125.2	-0.73	2.7	2.9	125.2	-0.73	2.7	2.9	4	LD
AJ4ADR	134.9	125.4	125.3 L	122.8	127.1	-0.49	3.4	5.3	127.1	-0.49	3.4	5.3	4	LD
AQ7JKJ	130.7	128.4	130.6	131.2 L	130.2	-0.10	3.4	1.2	130.2	-0.10	3.4	1.2	4	TH
B23R22	134.7 L	132.0	133.7 L	132.6	133.3	0.29	2.7	1.2	133.3	0.29	2.7	1.2	4	LD
BE7776	141.4	144.6 H	130.7	134.4	137.8	0.85	6.7	6.4	137.8	0.85	6.7	6.4 H	4	LC
BRB9MT	135.2	125.9	131.2 L	124.6	129.2	-0.22	3.7	4.9	129.2	-0.22	3.7	4.9	4	LC
BYYTRU	129.8 L	130.2	130.3 L	131.1 L	130.3	-0.08	2.3	0.6 L	130.3	-0.08	2.3	0.6 L	4	TH
CANAUZ	138.8	136.4	131.3	132.1	134.6	0.46	5.0	3.6	134.6	0.46	5.0	3.6	4	TC
DJBQZF	139.6	138.7	138.9 L	138.9	139.0	1.01	3.0	0.4 L	139.0	1.01	3.0	0.4 L	4	LZ
FKHRXX	118.9	123.1	125.7 L	124.9	123.2	-0.98	3.0	3.1	123.2	-0.98	3.0	3.1	4	LC
FQKVPH	133.5	121.3	118.0	129.2	125.5	-0.69	4.6	7.1	125.5	-0.69	4.6	7.1 H	4	LC
FQP7PV	121.7	126.4	132.0	131.1	127.8	-0.40	5.5	4.8	127.8	-0.40	5.5	4.8	4	LC
G8PF9R	126.6	126.3	126.7 L	123.6	125.8	-0.65	3.4	1.5	125.8	-0.65	3.4	1.5	4	LD
G9KYBT	136.4	139.2	140.3	129.8 H	136.4	0.68	8.3	4.7	136.4	0.68	8.3	4.7	4	LC
GKDRCN	121.0	119.2	119.1 L	118.0	119.4	-1.47	3.2	1.2	119.4	-1.47	3.2	1.2	4	LD
KBJDAU	139.8	141.3	145.5	138.9	141.4	1.31	4.0	2.9	141.4	1.31	4.0	2.9	4	LC
KNGUQF	137.1	141.5	141.8 L	144.3	141.2	1.28	3.8	3.0	141.2	1.28	3.8	3.0	4	EM
LEDUYT	132.0	129.3	127.4 L	125.4	128.5	-0.31	3.1	2.8	128.5	-0.31	3.1	2.8	4	LC
M7WMRN	117.9	117.9	117.7 L	119.3	118.2	-1.61	3.2	0.8	118.2	-1.61	3.2	0.8	4	EX
M8R7WB	145.4	139.9	147.1 L	136.4	142.2	1.41	3.6	4.9	142.2	1.41	3.6	4.9	4	MB

Containerboard Interlaboratory Testing Program
 Analysis 216
 Ring Crush, 69 lb Linerboard - 69C2
 TAPPI Official Test Method T822

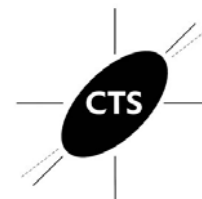


WebCode	Weekly Means				Monthly Results				Cumulative Results				Inst	
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks		Wks
MQGJ9E	129.5	125.1	125.5	L 125.2	126.3	-0.59	3.1	2.1	126.3	-0.59	3.1	2.1	4	TH
N2XLCR	116.3	116.4	115.1	L 116.5	116.1	-1.88	2.6	0.7	L 116.1	-1.88	2.6	0.7	L 4	EM
NEKZ6T	115.1 *H	112.4 *H	111.0 *	112.1 *H	112.6	-2.31 *	10.2	1.7	112.6	-2.31 *	10.2	1.7	4	LD
Q4FHTG	127.3	134.9	126.1	134.6	130.7	-0.03	5.3	4.7	130.7	-0.03	5.3	4.7	4	LZ
TH87T7	123.9 H	132.6	121.5	116.6	123.6	-0.93	7.6	6.7	123.6	-0.93	7.6	6.7	H 4	EM
TM3XYH	142.2	142.6	141.3	140.9	141.8	1.36	3.7	0.8	141.8	1.36	3.7	0.8	4	LD
VQFDQL	125.2	124.9	127.7	129.7	126.9	-0.52	4.2	2.3	126.9	-0.52	4.2	2.3	4	LD
VY4B9D	133.5	134.0	133.5	L 133.8	133.7	0.34	2.7	0.3	L 133.7	0.34	2.7	0.3	L 4	LZ
VZYVYJ	130.0	135.2	131.3	121.7	129.5	-0.18	6.1	5.7	129.5	-0.18	6.1	5.7	4	LA
WCAKDE	144.8	139.8	135.0	143.5	140.8	1.23	4.4	4.4	140.8	1.23	4.4	4.4	4	LC
WLXJ4K	164.4 XH	171.0 X	142.9 H	167.9 X	161.5	3.84 X	23.3	12.7	H 161.5	3.84 X	23.3	12.7	H 4	LC
WM8LR6	144.3	145.5	148.9 *	138.6	144.3	1.68	4.5	4.3	144.3	1.68	4.5	4.3	4	LZ
WZT2TH	130.5	131.8	131.0	130.5	130.9	-0.01	5.1	0.6	L 130.9	-0.01	5.1	0.6	L 4	LD
X4UGPD	131.9	128.5	124.7	127.4	128.1	-0.36	4.6	3.0	128.1	-0.36	4.6	3.0	4	LD
XXNL7D	134.0	130.9	133.2	L 140.2	134.6	0.45	4.1	4.0	134.6	0.45	4.1	4.0	4	LC
YT7VAG	131.1	130.2	130.6	L 130.3	L 130.6	-0.06	3.6	0.4	L 130.6	-0.06	3.6	0.4	L 4	LD
ZCHY9D	125.6	126.1	125.9	L 125.4	L 125.8	-0.66	3.7	0.3	L 125.8	-0.66	3.7	0.3	L 4	LC

Consensus (All Labs) Results									
Wk Mean	132.09	130.89	131.26	129.98	Month Mean	130.99	Grand Mean	130.99	
Avg SDr	4.41	4.51	7.79	5.12	Avg SDr	4.70	Avg SDr	4.70	
SD btwn Labs	8.19	8.66	8.76	8.73	SD btwn Labs	7.94	SD btwn Labs	7.94	
Labs Includ	50	51	52	50	SD btwn Wks	3.85	SD btwn Wks	3.85	
Labs Exclud	1	1	0	1	Labs Includ	51	Labs Includ	51	
Labs not rcvd	1	0	0	1					

Instrument Code List as Reported by the Labs

- (EM) - Emerson 1200
- (EN) - Emerson 2200
- (EX) - Emerson (model not specified)
- (LA) - L&W Autoline
- (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
- (TC) - TMI Monitor/Compression Tester, Model 17-37
- (TD) - TMI Digital Crush Tester, Model 17-09
- (TH) - TMI Compression Tester, Model 17-76
- (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 Wks	Mean	CPV	SDr	SD Wks	Wks	
39AGA9	24.4 L	24.3 L	26.0 L	26.1 L	25.2	0.17	0.0	1.0	26.1	0.77	0.0	1.0	16	LA
3WXBX7	24.6	23.6	23.9	24.5	24.1	-0.72	1.9	0.5	24.8	-0.24	1.9	0.6	16	LU
4NJPP3	25.2	24.4	24.0	24.6	24.5	-0.38	2.1	0.5	24.2	-0.68	2.0	0.5	16	LW
6GCMT2	25.5	24.4	25.5	25.1	25.1	0.12	2.2	0.5	25.1	0.04	2.2	0.4	16	LU
6ND2E3	25.5	26.1	25.2	25.5	25.6	0.48	1.3	0.4	26.0	0.69	1.4	0.9	16	LU
6PB6E6	23.5	24.0	23.4	23.0	23.5	-1.26	1.5	0.4	23.9	-0.95	1.8	0.5	16	LY
6XKGMV	25.7	26.4	25.1	25.1	25.6	0.47	2.2	0.6	25.7	0.48	2.2	1.0	15	LZ
7KT93Z	24.3 L	23.0 L	23.6 L	23.1 L	23.5	-1.25	0.3	0.6	23.7	-1.13	0.4	0.4	16	LA
83LPN9	27.8 *L	27.3 L	27.8 *	26.5	27.4	1.96	0.7	0.6	27.5	1.90	0.8	1.4 H	16	BK
8HYVZ8	23.8	23.6	24.3	24.0	23.9	-0.89	1.8	0.3	23.4	-1.35	1.8	0.6	16	LA
9BTQGM	48.4 XL	22.9	26.4 L	24.8 L	30.6	4.67 X	0.6	11.9H	30.3	4.14 X	0.3	8.7 H	16	XX
9DHYN3	27.0	28.9 X	26.2	29.2 X	27.8	2.35 *	2.0	1.4 H	27.2	1.65	2.2	1.5 H	16	LZ
9PCFD4	23.9	24.4	24.4	24.6	24.3	-0.56	1.8	0.3	23.7	-1.11	2.0	0.7	16	LU
A7JMC7	22.4 *	22.6	23.2	22.6	22.7	-1.91	1.6	0.3	22.4	-2.12 *	1.8	0.6	14	XX
AJ4ADR	24.9	24.5	24.5	24.8	24.7	-0.25	1.9	0.2	24.6	-0.41	2.0	0.4	16	LY
AQ7JKJ	26.6	27.9 *	27.9 *	26.9	27.3	1.94	2.2	0.7	27.3	1.76	2.2	0.7	4	TT
BE7776	25.0 L	25.3 L	23.8	24.2 L	24.6	-0.37	1.2	0.7	24.7	-0.30	1.5	0.7	16	LW
BMHA9X	26.7	25.9	26.0	25.9	26.1	0.94	1.4	0.4	26.4	1.03	1.5	0.7	16	LU
CANAUZ	26.1 L	26.4 L	27.4 L	26.0 L	26.5	1.22	0.6	0.6	25.8	0.55	0.5	1.2	16	LA
DZJJQ4	25.3 L	24.7 L	24.5 L	23.5 L	24.5	-0.41	0.0	0.8	25.1	-0.01	0.0	0.9	8	LU
F3W2ZK	24.5 L	24.3 L	25.6 L	23.9 L	24.6	-0.35	0.0	0.7	24.1	-0.78	0.0	0.9	12	TT
FKHRXX	25.0	25.1	23.4	24.7	24.5	-0.38	1.9	0.8	24.6	-0.42	1.8	0.7	16	LW
FQP7PV	22.9	23.9	24.8	25.6	24.3	-0.59	1.5	1.2	23.8	-0.99	2.1	0.8	16	LY
G7TAHY	26.1	25.9	25.9	27.8 *	26.4	1.18	2.3	0.9	26.8	1.36	2.6	1.0	16	LA
G9KYBT	25.4 L	25.4 L	24.2 L	25.3 L	25.1	0.05	0.5	0.6	25.7	0.44	0.5	0.8	16	LA
GKDRCN	23.2	23.1	22.5	23.4	23.1	-1.60	1.9	0.4	23.0	-1.64	2.1	0.4	16	LW
HCFGGJ	24.4	24.9	25.1	25.1	24.9	-0.11	0.9	0.3	24.9	-0.15	0.9	0.3	16	TT
HWMHYW	27.4 *	27.1	26.7	28.2 *	27.4	1.96	2.2	0.6	27.8	2.11 *	2.2	1.0	16	LA
JGNZFC	25.2	24.8	25.2	25.4	25.2	0.13	1.6	0.3	25.1	0.01	1.6	0.4	16	LY
KBJDAU	25.1	24.7	25.0	24.7	24.9	-0.11	1.2	0.2	24.9	-0.12	1.2	0.3	16	LW
KQQGPU	23.9	24.1	24.4	25.0	24.4	-0.54	1.7	0.5	24.4	-0.54	1.9	0.4	12	XX
L72KNU	26.0	27.2	26.8	No DATA	26.7	1.40	2.3	0.6	27.2	1.66	2.3	1.0	15	LW
LEDUYT	26.1	25.4	26.1	24.2	25.4	0.37	1.8	0.9	25.1	0.02	1.9	0.6	16	LW
M8R7WB	25.1 L	24.6 L	25.5 L	25.7 L	25.2	0.18	0.1	0.5	25.3	0.12	0.1	0.5	16	LA
MQGJ9E	24.2 L	24.5	25.0	24.5	24.6	-0.36	1.0	0.3	24.6	-0.40	1.0	0.2	16	TT



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks	Wks	Inst
NEKZ6T	24.4	23.9	23.9	23.5	23.9	-0.87	2.2	0.4	24.2	-0.68	2.0	0.6	16	LY
Q4FHTG	23.7	24.2	25.1	23.7	24.2	-0.69	1.7	0.7	24.8	-0.25	1.9	0.7	16	LZ
QJRYJ	26.5	26.8	26.8	27.1	26.8	1.51	2.6	0.2	27.1	1.56	2.5	1.4 H	16	LU
U2WZYL	23.7	21.9 *L	22.7	23.1 L	22.8	-1.80	1.5	0.8	23.6	-1.21	1.2	1.0	16	LW
VQFDQL	23.1	23.7	24.4	24.2	23.8	-0.96	1.5	0.6	24.0	-0.86	1.5	0.5	16	BK
VZYYVYJ	25.0 L	25.6 L	25.7 L	23.6 L	25.0	-0.01	0.5	1.0	24.9	-0.14	0.5	0.7	16	LA
WLXJ4K	26.0	25.6	26.0	26.5	26.0	0.86	1.0	0.4	25.7	0.44	1.0	0.8	16	LY
WZT2TH	24.7	24.3	24.1	23.8	24.2	-0.65	2.0	0.4	24.2	-0.75	2.2	1.1	16	LA
X4UGPD	23.6	24.3	24.2	23.8	24.0	-0.86	2.2	0.4	24.1	-0.77	2.0	0.6	12	LY
XPUM9C	24.0	24.4	26.5	25.2	25.0	0.03	1.1	1.1	26.0	0.70	1.4	1.1	16	XX
XXNL7D	25.7	24.2	26.4	26.7	25.7	0.62	1.9	1.1	25.5	0.31	2.0	0.8	16	LW
YT7VAG	25.2	25.8	25.4	24.8	25.3	0.25	2.3	0.4	26.6	1.19	2.3	1.0	12	XX
ZCHY9D	24.6 L	24.9 L	23.6 L	25.3 L	24.6	-0.32	0.5	0.8	24.1	-0.81	0.6	1.5 H	15	LA

Consensus (All Labs) Results									
Wk Mean	24.95	24.82	25.08	24.90	Month Mean	24.99	Grand Mean	25.10	
Avg SDr	1.65	1.62	1.71	1.51	Avg SDr	1.65	Avg SDr	1.71	
SD btwn Labs	1.20	1.29	1.30	1.28	SD btwn Labs	1.20	SD btwn Labs	1.26	
Labs Includ	47	47	48	46	SD btwn Wks	0.65	SD btwn Wks	0.82	
Labs Exclud	1	1	0	1	Labs Includ	47	Labs Includ	47	
Labs not rcvd	0	0	0	1					

Instrument Code List as Reported by the Labs

- (BK) - Buchel Strip Compression Tester BK-155
- (LU) - L & W 52 without moisture correction(was 53)
- (LY) - L & W 152 without moisture correction
- (TT) - TMI Short Span Compression, 17-34 (MB K455)

- (LA) - L & W Autoline
- (LW) - L & W 53 with moisture correction (was 53M)
- (LZ) - L & W (model not specified)
- (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 Wks	Mean	CPV	SDr	SD Wks	Wks	
39AGA9	36.5 L	35.3 L	35.8 L	35.6 L	35.8	1.49	0.0	0.5	35.8	1.49	0.0	0.5	4	LA
3WXBX7	32.2	31.6	31.5	31.6	31.7	-0.53	1.9	0.3	31.7	-0.53	1.9	0.3	4	LU
4NJPP3	33.6	32.6	31.9	32.1	32.6	-0.11	1.8	0.8	32.6	-0.11	1.8	0.8	4	LW
6GCMT2	31.6	31.6	31.4	31.0	31.4	-0.68	1.6	0.3	31.4	-0.68	1.6	0.3	4	LU
6ND2E3	32.3	33.4	34.4	33.4	33.4	0.30	1.5	0.9	33.4	0.30	1.5	0.9	4	LU
6PB6E6	31.4	31.6	30.5	29.6	30.8	-1.00	1.7	0.9	30.8	-1.00	1.7	0.9	4	LY
6XKGMV	35.2	33.4	34.7	34.6	34.5	0.83	2.0	0.8	34.5	0.83	2.0	0.8	4	LZ
7KT93Z	29.7 L	29.9 L	30.0 L	30.8 L	30.1	-1.34	0.4	0.5	30.1	-1.34	0.4	0.5	4	LA
83LPN9	36.7 L	36.4	36.3	36.6	36.5	1.85	0.8	0.2	36.5	1.85	0.8	0.2	4	BK
8HYVZ8	32.4	31.5	32.3	32.0	32.1	-0.36	1.9	0.4	32.1	-0.36	1.9	0.4	4	LA
9BTQGM	63.7 XL	32.6	34.0 L	36.3 L	41.6	4.41 X	1.0	14.8 H	41.6	4.41 X	1.0	14.8 H	4	XX
9DHYN3	35.4	35.4	34.1	35.4	35.1	1.13	2.0	0.7	35.1	1.13	2.0	0.7	4	LZ
9PCFD4	31.3	31.3	30.0	30.9	30.9	-0.96	1.8	0.6	30.9	-0.96	1.8	0.6	4	LU
A7JMC7	28.1 *	28.8	29.0	28.6 *	28.6	-2.06 *	1.6	0.4	28.6	-2.06 *	1.6	0.4	4	XX
AJ4ADR	31.2	31.2	30.4	31.7	31.1	-0.81	1.3	0.5	31.1	-0.81	1.3	0.5	4	LY
AQ7JKJ	35.3	34.7	34.8	34.5	34.8	1.02	1.9	0.3	34.8	1.02	1.9	0.3	4	TT
BE7776	33.4	35.4	35.2	35.3	34.8	1.01	2.1	0.9	34.8	1.01	2.1	0.9	4	LW
BMHA9X	34.6	34.7	34.3 L	36.1	34.9	1.07	1.3	0.8	34.9	1.07	1.3	0.8	4	LU
CANAUZ	30.8 L	32.4 L	32.0	32.1 L	31.8	-0.47	0.5	0.7	31.8	-0.47	0.5	0.7	4	LA
DZJJQ4	32.9 L	31.4 L	30.1 L	29.6 L	31.0	-0.88	0.0	1.5	31.0	-0.88	0.0	1.5 H	4	LU
F3W2ZK	32.8 L	33.1 L	33.8 L	32.9 L	33.2	0.18	0.0	0.5	33.2	0.18	0.0	0.5	4	XX
FKHRXX	31.1	29.3	28.8	31.1	30.1	-1.33	1.2	1.2	30.1	-1.33	1.2	1.2	4	LW
FQP7PV	31.7	32.8	33.2	32.6	32.6	-0.11	1.8	0.6	32.6	-0.11	1.8	0.6	4	LY
G7TAHY	35.0	34.2	34.8	34.5	34.6	0.92	1.7	0.3	34.6	0.92	1.7	0.3	4	LA
G9KYBT	35.6 L	35.8 L	35.1	34.2	35.2	1.20	0.7	0.7	35.2	1.20	0.7	0.7	4	LA
GKDRCN	30.9	31.1	30.3	30.3	30.7	-1.06	1.7	0.4	30.7	-1.06	1.7	0.4	4	LW
HCFGGJ	33.6	32.6	32.7	33.2	33.0	0.11	1.3	0.5	33.0	0.11	1.3	0.5	4	TT
HWMHYW	37.6 *	37.1 *	37.3 *	37.6 *	37.4	2.30 *	1.9	0.3	37.4	2.30 *	1.9	0.3	4	LA
JGNZFC	32.1	31.9	33.1	32.9	32.5	-0.14	1.7	0.6	32.5	-0.14	1.7	0.6	4	LY
KBJDAU	34.5	34.8	35.1	35.0	34.9	1.03	1.7	0.3	34.9	1.03	1.7	0.3	4	LW
KQQGPU	30.6	30.9	28.9	31.1	30.4	-1.20	1.4	1.0	30.4	-1.20	1.4	1.0	4	XX
L72KNU	35.4	35.8	35.2	No DATA	35.4	1.33	2.0	0.3	35.4	1.33	2.0	0.3	3	LW
LEDUYT	33.0	33.0	31.5	31.8	32.3	-0.22	1.4	0.8	32.3	-0.22	1.4	0.8	4	LW
M8R7WB	33.1 L	33.7 L	32.5 L	34.8 L	33.5	0.38	0.1	1.0	33.5	0.38	0.1	1.0	4	LA
MQGJ9E	32.8	32.5	32.1	33.1	32.6	-0.08	1.2	0.4	32.6	-0.08	1.2	0.4	4	TT



WebCode	Weekly Means				Monthly Results				Cumulative Results				Inst	
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks		Wks
NEKZ6T	31.6	31.5	31.6	30.5	31.3	-0.75	1.5	0.5	31.3	-0.75	1.5	0.5	4	LY
Q4FHTG	31.0	30.5	30.4	29.9	30.4	-1.16	1.5	0.5	30.4	-1.16	1.5	0.5	4	LZ
QJRYJ	31.8	34.1	32.8	35.2	33.5	0.35	1.5	1.5	33.5	0.35	1.5	1.5 H	4	LU
U2WZYL	29.4	32.3	30.9	32.7	31.3	-0.72	1.8	1.5	31.3	-0.72	1.8	1.5 H	4	LW
VQFDQL	30.4	31.7	30.1	32.1	31.1	-0.86	1.4	1.0	31.1	-0.86	1.4	1.0	4	BK
VZVYVYJ	32.6 L	34.8	32.1 L	30.9 L	32.6	-0.10	0.6	1.6 H	32.6	-0.10	0.6	1.6 H	4	LA
WLXJ4K	36.4	36.9	37.1 *	37.7 *	37.0	2.09 *	1.5	0.5	37.0	2.09 *	1.5	0.5	4	LY
WZT2TH	30.8	29.6	30.9	32.6	30.9	-0.91	1.3	1.2	30.9	-0.91	1.3	1.2	4	LA
X4UGPD	31.4	30.7	31.2	32.1	31.4	-0.71	1.6	0.6	31.4	-0.71	1.6	0.6	4	LY
XPUM9C	32.1	34.3	34.0	33.9	33.6	0.40	1.5	1.0	33.6	0.40	1.5	1.0	4	LU
XXNL7D	31.1	31.9	32.8	33.3	32.3	-0.26	1.5	1.0	32.3	-0.26	1.5	1.0	4	LW
YT7VAG	33.1	33.3	33.9	33.4	33.4	0.32	1.8	0.3	33.4	0.32	1.8	0.3	4	XX
ZCHY9D	31.5 L	30.9 L	32.4 L	32.5 L	31.8	-0.48	0.5	0.8	31.8	-0.48	0.5	0.8	4	LA

Consensus (All Labs) Results									
Wk Mean	32.72	32.83	32.65	32.96	Month Mean	32.78	Grand Mean	32.78	
Avg SDr	1.48	1.53	1.47	1.49	Avg SDr	1.50	Avg SDr	1.50	
SD btwn Labs	2.10	2.02	2.18	2.17	SD btwn Labs	2.01	SD btwn Labs	2.01	
Labs Includ	47	48	48	47	SD btwn Wks	0.78	SD btwn Wks	0.78	
Labs Excl	1	0	0	0	Labs Includ	47	Labs Includ	47	
Labs not rcvd	0	0	0	1					

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)

(LY) - L & W 152 with moisture correction

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

(TT) - TMI Short Span Compression, 17-34 (MB K455)

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

Containerboard Interlaboratory Testing Program
 Analysis 228
Roughness - Stylus Method, 69 lb Linerboard - 69C
 TAPPI Provisional Test Method T575



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
39AGA9	125.2	-0.48	19.4	124.9	-0.74	14.1	4	LA
3WXBX7	139.1	0.25	6.6	142.6	0.44	11.5	4	EV
4NJPP3	141.7	0.38	16.9	139.3	0.22	13.5	4	EV
6ND2E3	148.4	0.73	8.1	193.6	3.87 X	84.5	4	EV
6PB6E6	162.8	1.48	17.7	149.7	0.92	15.6	4	EV
6XKGMV	146.2	0.62	12.3	135.8	-0.01	12.1	4	LA
7KT93Z	127.0	-0.39	5.7	123.2	-0.86	10.0	4	EV
83LPN9	137.1	0.14	10.0	135.3	-0.05	14.1	4	EV
9BTQGM	146.0	0.60	17.7	150.2	0.96	24.6	4	EV
9DHYN3	116.5	-0.93	12.6	127.6	-0.57	12.8	4	LA
9PCFD4	143.7	0.48	14.7	144.0	0.54	13.5	4	EV
BE7776	91.9	-2.21 *	5.4	130.3	-0.39	7.1	4	EV
BMHA9X	149.7	0.79	12.7	205.7	4.69 X	93.6	4	EV
FKHRXX	141.8	0.39	15.7	145.2	0.62	12.2	4	XX
G7TAHY	123.4	-0.57	15.2	116.2	-1.33	14.9	4	LA
G9KYBT	144.9	0.55	14.6	156.3	1.37	20.3	4	LA
M8R7WB	134.2	-0.01	17.1	139.3	0.22	16.6	4	LA
TM3XYH	119.6	-0.77	9.5	124.4	-0.78	11.8	4	EV
WLXJ4K	90.0	-2.31 *	6.9	102.0	-2.29 *	8.5	4	EV
ZCHY9D	158.7	1.27	25.3	161.7	1.73	27.5	4	LA

Consensus (All Labs) Results

Month Mean	134.40	Grand Mean	136.00
Avg SDr	14.16	Avg SDr	15.34
SD btwn Labs	19.21	SD btwn Labs	14.87
Labs Incd	20	Labs Incd	18

Instrument Code List as Reported by the Labs

(EV) - Emvco Microgag Model 210-R

(LA) - L & W Autoline

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

Containerboard Interlaboratory Testing Program
 Analysis 231
Internal Bond, 36 lb Linerboard - 36Z
 TAPPI Provisional Test Method T569



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
3WXBX7	149.2	-1.01	9.3	155.9	-0.67	7.1	4	TM
6GCMT2	176.8	0.57	8.6	173.2	0.46	5.5	4	HY
6ND2E3	142.8	-1.38	6.8	150.1	-1.04	7.2	4	TM
8HYVZ8	183.8	0.97	6.1	183.8	1.16	6.1	1	HY
9DHYN3	138.0	-1.66	7.8	149.8	-1.06	10.0	4	TM
A7JMC7	91.5	-4.32 X	3.5	139.4	-1.75	7.9	4	SC
AHC7TW	170.7	0.22	5.0	177.6	0.75	4.1	3	SC
BE7776	196.0	1.67	11.4	173.5	0.48	17.0	4	SC
BMHA9X	147.6	-1.11	5.7	147.4	-1.22	8.5	4	TM
CANAUZ	158.0	-0.51	2.5	156.5	-0.63	4.1	4	SC
FKHRXX	191.6	1.42	8.8	197.5	2.05 *	10.3	4	HY
GKDRCN	179.6	0.73	9.4	175.5	0.61	8.1	4	TM
KCMD2E	162.9	-0.23	3.7	164.3	-0.12	5.2	4	TM
TM3XYH	170.6	0.21	9.8	169.0	0.19	11.1	4	HY
VZYVYJ	163.8	-0.18	7.1	168.5	0.15	16.2	4	TM
WZT2TH	65.0	-5.84 X	1.4	63.8	-6.68 X	1.5	4	LZ
ZCHY9D	172.0	0.30	6.5	175.6	0.62	8.6	4	HY

Consensus (All Labs) Results

Month Mean	166.89	Grand Mean	166.08
Avg SDr	7.60	Avg SDr	9.31
SD btwn Labs	17.45	SD btwn Labs	15.32
Labs Incd	15	Labs Incd	16

Instrument Code List as Reported by the Labs

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

(LZ) - L & W (model not specified)
 (TM) - TMI Monitor/Internal Bond Tester

Containerboard Interlaboratory Testing Program
 Analysis 234
COF Inclined Plane (Slide Angle), 36 lb Linerboard - 36Z
 TAPPI Official Test Method T815



WebCode	Monthly Results			Cumulative Results			
	Mean	CPV	SDr	Mean	CPV	SDr	Months
3WXBX7	29.1	1.41	1.9	27.2	-0.02	2.1	4
6GCMT2	22.6	-1.35	0.9	24.5	-1.40	1.1	4
6ND2E3	25.8	0.01	1.0	27.0	-0.10	1.3	4
6PB6E6	23.7	-0.86	1.2	25.1	-1.08	1.5	4
7THWX3	23.2	-1.09	1.3	26.0	-0.63	3.3	4
9DHYN3	23.6	-0.92	0.9	25.1	-1.09	2.2	4
9PCFD4	23.6	-0.92	1.5	30.8	1.85	3.4	4
BE7776	26.2	0.18	0.4	26.8	-0.22	1.9	4
BMHA9X	25.8	0.01	1.0	28.9	0.87	2.4	4
CANAUZ	29.6	1.62	1.1	29.5	1.15	0.9	4
FKHRXX	26.4	0.26	1.3	26.1	-0.58	1.5	4
GKDRCN	25.9	0.05	2.2	26.6	-0.30	2.7	4
VZYVYJ	35.0	3.91 X	1.7	29.9	1.38	2.2	4
WCAKDE	24.0	-0.75	3.4	24.2	-1.58	2.7	4
WZT2TH	29.2	1.45	0.8	28.3	0.53	1.0	4
XPUM9C	23.7	-0.87	0.9	26.7	-0.27	1.6	4
XXNL7D	26.4	0.26	1.9	27.8	0.27	3.1	4
ZCHY9D	29.4	1.52	1.8	29.6	1.21	2.1	4

Consensus (All Labs) Results			
Month Mean	25.78	Grand Mean	27.22
Avg SDr	1.55	Avg SDr	2.19
SD btwn Labs	2.36	SD btwn Labs	1.94
Labs Incl	17	Labs Incl	18

Instrument Code List as Reported by the Labs

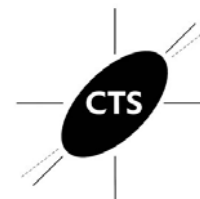
(ZZ) - Instruments No Longer Tracked

Containerboard Interlaboratory Testing Program

Analysis 237

Air Resistance, 36 lb Linerboard - 36Z

TAPPI Official Test Method T460



WebCode	Monthly Results			Cumulative Results				
	Mean	CPV	SDr	Mean	CPV	SDr	Months	Inst
39AGA9	51.0	0.24	1.9	52.5	0.67	3.5	4	TL
6GCMT2	51.0	0.24	2.2	51.0	0.22	2.7	4	TP
6ND2E3	52.6	0.67	1.6	52.3	0.59	1.7	4	LA
7THWX3	49.5	-0.16	2.2	47.7	-0.71	2.4	4	GA
83LPN9	53.8	0.99	1.6	53.2	0.86	1.5	4	XX
9BTQGM	49.7	-0.10	3.4	50.4	0.04	2.3	4	LW
9DHYN3	41.5	-2.35 *	5.6	42.2	-2.30 *	5.3	4	XX
9PCFD4	50.9	0.21	1.0	50.3	0.02	1.6	4	LP
AHC7TW	50.1	-0.01	0.9	51.0	0.23	1.9	4	LP
AJ4ADR	49.2	-0.25	2.0	49.5	-0.19	1.2	4	LP
BE7776	53.2	0.84	2.8	52.2	0.58	3.3	4	HG
BMHA9X	42.5	-2.08 *	2.2	43.5	-1.93	2.9	4	XX
DNQ323	53.6	0.94	2.0	52.6	0.69	1.9	4	XX
FKHRXX	50.2	0.01	2.1	52.2	0.58	1.9	4	LP
G9KYBT	51.1	0.26	2.2	50.4	0.04	2.1	4	LA
GKDRCN	52.1	0.54	2.5	52.5	0.65	2.4	4	HG
HV93KV	47.9	-0.61	1.3	48.0	-0.62	1.7	4	LA
VY4B9D	52.9	0.76	3.0	53.8	1.03	2.1	4	XX
VZVYVJ	52.0	0.52	2.1	51.1	0.26	1.9	4	LA
WZT2TH	53.9	1.02	1.4	54.0	1.07	1.8	4	LA
XPUM9C	41.2	-2.42 *	1.7	41.5	-2.50 *	2.2	4	XX
XXNL7D	50.6	0.14	1.6	50.8	0.18	1.9	4	LP
ZCHY9D	52.3	0.58	1.0	52.1	0.54	1.7	4	LA

Consensus (All Labs) Results

Month Mean	50.11	Grand Mean	50.20
Avg SDr	2.32	Avg SDr	2.42
SD btwn Labs	3.68	SD btwn Labs	3.50
Labs Incd	23	Labs Incd	23

Instrument Code List as Reported by the Labs

(GA) - Gurley Precision #4340 Automatic Densometer

(LA) - L & W Autoline

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

(TP) - Technidyne Profile/ plus Roughness & Porosity

(HG) - Technidyne - Hagerty Model #1 and Profile System

(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 - CM73
 TAPPI Official Test Method T809



WebCode	Weekly Means				Monthly Results				Cumulative Results					Inst
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks	Wks	
2D7RMU	62.8	63.2	62.3	61.2	62.4	0.27	2.7	0.9	61.6	-0.36	2.7	0.9	16	LD
2P6JC8	60.4	62.3	61.9	60.5 L	61.3	-0.30	2.7	1.0	61.5	-0.41	3.0	1.4	8	LC
2XFP66	62.6	65.8	62.0	66.2 *	64.1	1.19	3.7	2.2	63.0	0.51	3.6	2.1	16	LC
3CQT46	61.7	62.2	61.6	61.2 L	61.7	-0.09	1.6	0.4	61.8	-0.23	1.7	0.6	16	LC
3WXBX7	56.2 * 57.7	54.0 X	59.2		56.8	-2.65 *	2.8	2.2	59.2	-1.72	2.7	2.5	16	LD
6GCMT2	60.2	61.2	61.7	61.8	61.2	-0.32	3.7	0.7	61.3	-0.51	3.5	1.2	16	LC
6ND2E3	59.8	64.1	61.7	61.2 H	61.7	-0.08	5.2	1.8	63.3	0.67	4.4	3.2 H	16	LC
6XKGMV	58.7	58.8	60.9	60.0	59.6	-1.17	2.8	1.1	59.9	-1.34	3.1	2.2	15	LD
7434WR	63.1	65.4	59.4	62.3	62.6	0.37	3.2	2.5	61.6	-0.36	2.9	2.3	16	XX
7DBZGN	59.5	61.3	59.1	64.2	61.0	-0.45	2.8	2.3	60.5	-0.99	2.6	1.4	16	TD
7TJU9X	62.4 L	63.4 L	61.2	63.3 L	62.6	0.38	1.1	1.0	62.3	0.09	1.4	1.2	12	TD
83LPN9	61.1	62.9	65.5	62.1	62.9	0.54	3.5	1.9	62.7	0.31	4.4	1.8	16	MB
8CUYF8	62.6	61.1	62.2	62.8	62.2	0.16	2.6	0.8	61.6	-0.32	2.6	0.9	16	LD
8HYVZ8	59.6	58.6	58.6	57.7 *	58.6	-1.68	2.4	0.8	59.6	-1.52	2.7	1.5	16	LC
9BTQGM	60.5	56.5 *	58.4	59.7	58.8	-1.61	3.0	1.7	55.6	-3.86 X	6.8	3.7 H	16	XX
9PCFD4	60.6	60.6	60.5	61.5	60.8	-0.55	2.4	0.5	61.1	-0.66	3.6	1.4	16	LZ
A7JMC7	57.5	59.3	62.0	62.5	60.3	-0.79	2.9	2.3	60.9	-0.73	2.8	1.4	16	LC
AQ7JKJ	60.8	62.8	61.2	63.3	62.0	0.09	2.8	1.2	62.0	-0.09	2.8	1.2	4	TH
B23R22	64.7	65.8	64.6	63.2	64.6	1.42	3.3	1.1	63.9	1.03	3.1	0.8	16	LD
B2EN77	63.0	64.0	63.9	60.5	62.8	0.51	3.2	1.6	63.4	0.74	3.5	3.0 H	16	LD
BRB9MT	62.0	66.4	61.1	65.6	63.8	1.01	3.3	2.6	62.5	0.17	3.4	2.3	16	LC
CD9273	62.9	63.6	62.4	61.8	62.7	0.43	2.7	0.8	62.6	0.26	3.0	1.0	16	LD
DNQ323	61.1	63.5	61.4	63.0 L	62.2	0.20	1.9	1.2	61.5	-0.42	2.6	1.1	16	LD
ED726T	61.9	62.5	62.6	61.7	62.2	0.17	2.5	0.4	62.5	0.18	2.2	0.4	16	LC
FH9G62	62.4	63.2	63.0	63.2 L	62.9	0.56	2.0	0.4	62.5	0.20	1.8	0.4	16	LD
FKHRXX	59.4	61.5	59.7	61.5	60.5	-0.69	3.7	1.1	61.0	-0.67	4.0	1.9	16	LC
G6GAMQ	57.6	59.7	59.8	61.5	59.6	-1.16	3.0	1.6	60.9	-0.73	2.8	2.1	12	LZ
HCFGGJ	61.1 H	61.2	61.4 H	63.2	61.7	-0.06	5.7	1.0	61.4	-0.44	4.9	2.1	16	TG
HV93KV	64.6 H	63.1	65.9	63.9	64.4	1.32	4.1	1.2	65.2	1.76	4.0	2.2	16	LC
HVPEYU	62.7	63.4	62.4	61.0	62.4	0.27	2.3	1.0	61.8	-0.23	2.4	0.9	16	EM
HWMHYW	60.0	57.3 *	57.3 *	57.9 *H	58.1	-1.94	4.2	1.3	59.0	-1.84	3.4	2.0	9	LD
KBJDAU	62.6	61.8 L	61.5	62.1	62.0	0.07	2.3	0.5	61.8	-0.20	2.0	0.5	16	LD
L72KNU	59.6 H	60.7	61.2	No DATA	60.5	-0.71	4.5	0.8	62.3	0.06	3.8	1.6	15	LC
LEDUYT	65.0	66.1	64.7	64.8	65.1	1.71	2.3	0.7	64.9	1.60	2.2	1.2	16	LC
M8R7WB	57.8	62.3	54.4 XH	60.1	58.7	-1.66	4.5	3.4 H	58.4	-2.20 *	3.7	2.5	16	MB

Containerboard Interlaboratory Testing Program
 Analysis 240
Flat Crush Strength (CMT), 26 lb Corrugating Medium - CM73
 TAPPI Official Test Method T809



WebCode	Weekly Means					Monthly Results				Cumulative Results				Inst	
	Week 1	Week 2	Week 3	Week 4		Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks		Wks
MQGJ9E	62.9	60.5	61.2	60.3	L	61.2	-0.34	2.8	1.2	61.7	-0.27	2.9	0.9	16	TH
MVD2TL	62.9	63.1	61.8	61.6		62.4	0.26	2.4	0.8	62.7	0.28	2.5	0.5	16	LD
N2XLCR	65.3	63.4	65.3	63.6		64.4	1.30	3.1	1.0	65.1	1.73	2.9	1.0	16	EM
Q4FHTG	56.5 *	63.9	64.1	61.7		61.6	-0.15	2.9	3.5 H	64.8	1.56	3.6	4.2 H	16	LZ
U6XPKF	63.7	59.9 H	66.1	62.8 H		63.1	0.65	6.5	2.6	64.3	1.22	7.1	2.7	16	LC
URN8N7	67.1 *	66.2	66.4 *	65.6		66.3	2.33 *	2.7	0.6	66.4	2.49 *	2.9	1.2	12	TM
X4UGPD	60.7 L	63.8	62.5	61.7		62.2	0.16	2.4	1.3	62.2	0.01	2.9	0.7	16	LD
XXNL7D	63.2	61.5	63.4	63.3		62.8	0.51	2.7	0.9	63.5	0.79	3.1	1.5	14	LC
YT7VAG	62.5	62.2	63.0	64.1		63.0	0.57	3.8	0.8	63.1	0.55	3.9	2.9	16	LD

Consensus (All Labs) Results										
Wk Mean	61.43	62.22	62.07	62.10		Month Mean	61.86		Grand Mean	62.18
Avg SDr	3.18	3.11	3.11	3.53		Avg SDr	3.27		Avg SDr	3.29
SD btwn Labs	2.35	2.38	2.10	1.86		SD btwn Labs	1.92		SD btwn Labs	1.71
Labs Includ	44	44	42	43		SD btwn Wks	1.54		SD btwn Wks	1.80
Labs Exclud	0	0	2	0		Labs Includ	44		Labs Includ	43
Labs not rcvd	0	0	0	1						

Instrument Code List as Reported by the Labs

- | | |
|--|---|
| (EM) - Emerson 1200 Series | (LC) - L & W Crush Tester 48 |
| (LD) - L&W Crush Tester 248 | (LZ) - L & W Crush Tester (model not specified) |
| (MB) - Messmer Buchel K440 | (TD) - TMI Digital Crush Tester, Model 17-09 |
| (TG) - TMI Compression Tester, Model 17-10 | (TH) - TMI Compression Tester, Model 17-76 |
| (TM) - TMI/Hinde & Dauch | (XX) - Instrument make/model not specified by lab |

Containerboard Interlaboratory Testing Program
 Analysis 250
Fluted Edge Crush Strength (FCF), 26 lb Corrugating Medium - CM73
 TAPPI Official Method T824



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks	Wks	Inst
2P6JC8	73.0 H	71.9	73.2	75.5	73.4	-0.40	3.7	1.5	73.3	-0.49	3.7	2.1	8	LZ
2XFP66	79.4	77.1	79.8	77.8	78.5	1.92	2.7	1.3	77.0	1.58	2.8	3.4	16	LC
6GCMT2	78.6	78.7	78.0	78.8	78.5	1.91	2.1	0.4 L	77.8	2.01 *	2.9	1.5	16	LC
7434WR	78.0	74.1	64.1 *H	78.5	73.7	-0.27	5.0	6.7 H	72.7	-0.79	4.5	5.6 H	16	TU
7TJU9X	73.7 L	71.7 L	71.3 L	73.1 L	72.4	-0.83	0.9	1.2	72.1	-1.11	1.0	0.8	12	TD
B2EN77	73.3	73.1	73.6	72.7	73.2	-0.49	2.7	0.4 L	74.6	0.25	2.7	2.0	16	LD
FH9G62	73.5	73.3	73.5	72.0	73.1	-0.54	1.8	0.7	73.0	-0.61	1.8	0.4 L	16	LD
KBJDAU	71.1 L	72.4	72.2 L	71.9	71.9	-1.07	1.2	0.6	72.4	-0.98	1.7	0.7	16	LD
LEDUYT	73.3	75.4	73.9	75.1	74.4	0.07	2.4	1.0	75.1	0.50	2.4	1.1	16	LC
Q4FHTG	77.0	77.1	67.6	78.1	74.9	0.30	2.4	4.9	73.6	-0.28	3.1	3.2	16	LZ
VY4B9D	70.9 L	72.9	71.8	73.2	72.2	-0.92	1.5	1.1	73.0	-0.62	1.7	1.1	16	XX
XXNL7D	75.5	73.7	76.0	74.7	75.0	0.32	2.7	1.0	75.1	0.54	3.3	1.7	14	XX

Consensus (All Labs) Results														
Wk Mean	74.77	74.29	72.92	75.12	Month Mean	74.27				Grand Mean	74.15			
Avg SDr	2.83	2.48	3.18	1.94	Avg SDr	2.65				Avg SDr	2.79			
SD btwn Labs	2.87	2.28	4.21	2.60	SD btwn Labs	2.21				SD btwn Labs	1.82			
Labs Incd	12	12	12	12	SD btwn Wks	2.55				SD btwn Wks	2.43			
Labs Excl	0	0	0	0	Labs Incd	12				Labs Incd	12			
Labs not rcvd	0	0	0	0										

Instrument Code List as Reported by the Labs

(LC) - L & W Crush Tester 48

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

(TU) - TMI Universal Crush Tester (TMI K440)

(LD) - L&W Crush Tester 248

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

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

Containerboard Interlaboratory Testing Program
 Analysis 255
 Ring Crush (RCT), 26 lb Corrugating Medium - CM73
 TAPPI Official Test Method T822



WebCode	Weekly Means				Monthly Results				Cumulative Results					
	Week 1	Week 2	Week 3	Week 4	Mean	CPV	SDr	SD Wks	Mean	CPV	SDr	SD Wks	Wks	Inst
2D7RMU	47.2	48.5	48.3	47.6	47.9	1.57	2.2	0.6	48.9	1.90	2.1	0.9	16	LD
3CQT46	45.6	44.6 L	45.2	45.0	45.1	0.44	1.3	0.4	45.4	0.50	1.2	0.8	16	LC
6GCMT2	45.6	43.6	45.8	43.3	44.6	0.24	3.0	1.3	44.4	0.09	3.2	1.0	16	LC
6XKGMV	40.1 L	39.6	40.9 L	40.2	40.2	-1.51	1.5	0.5	40.9	-1.33	2.5	1.6	15	LD
8CUYF8	48.2	49.0	48.6	48.6 H	48.6	1.85	3.7	0.3	48.1	1.58	3.8	0.7	16	LZ
9BTQGM	44.8	38.6	46.9	46.1	44.1	0.05	2.7	3.8 H	44.2	0.01	2.8	3.5 H	16	XX
B23R22	43.2	43.9	42.8	43.0 L	43.2	-0.30	1.6	0.4	44.0	-0.07	2.3	0.8	16	LD
B2EN77	44.9	44.7	42.9	43.9	44.1	0.06	2.7	0.9	44.6	0.17	2.7	1.1	16	LD
BRB9MT	41.5	40.4	41.3	39.9	40.8	-1.27	2.2	0.7	41.1	-1.25	2.1	1.1	16	LC
BYYTRU	41.5	41.4	41.4	41.7	41.5	-1.00	2.3	0.1 L	41.6	-1.04	2.2	0.8	16	TH
CD9273	44.5	45.5	45.7	46.0	45.5	0.59	2.3	0.7	45.7	0.62	2.0	0.9	16	LD
DNQ323	41.0	43.1	41.3	42.6	42.0	-0.80	2.7	1.0	42.2	-0.81	3.5	1.5	16	LD
HV93KV	49.1	48.4	47.5	47.3	48.1	1.63	2.7	0.8	48.3	1.67	2.7	0.8	16	LD
HVPEYU	41.4	42.4	41.4	41.2	41.6	-0.96	2.3	0.6	41.1	-1.24	2.2	1.0	16	LC
KN36RA	41.9	46.4	44.9	44.8	44.5	0.21	2.7	1.9	44.0	-0.07	2.8	2.9 H	16	LZ
QUMEF8	44.5 L	44.0	45.4	45.9 L	44.9	0.39	1.2	0.8	44.5	0.14	1.3	0.7	12	WK
URN8N7	43.0	45.3	45.7	40.2	43.5	-0.17	2.7	2.5	44.2	0.02	2.7	3.4 H	12	LD
XXNL7D	43.6 L	37.7	41.9	42.5	41.4	-1.02	2.1	2.6	42.0	-0.90	2.4	2.6	16	LC

Consensus (All Labs) Results

Wk Mean	43.98	43.72	44.33	43.88	Month Mean	43.98	Grand Mean	44.20
Avg SDr	2.49	2.21	2.44	2.47	Avg SDr	2.41	Avg SDr	2.55
SD btwn Labs	2.55	3.30	2.60	2.69	SD btwn Labs	2.50	SD btwn Labs	2.46
Labs Includ	18	18	18	18	SD btwn Wks	1.46	SD btwn Wks	1.71
Labs Exclud	0	0	0	0	Labs Includ	18	Labs Includ	18
Labs not rcvd	0	0	0	0				

Instrument Code List as Reported by the Labs

(LC) - L & W Crush Tester 48

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

(WK) - Zwick Z005 Crush Tester

(LD) - L&W Crush Tester 248

(TH) - TMI Compression Tester, Model 17-76

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

Containerboard Interlaboratory Testing Program
 Analysis 261
STFI, 26 lb Corrugating Medium - CM73
 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 Wks	Mean	CPV	SDr	SD Wks		Wks
2D7RMU	14.8	15.3	14.9	15.1	15.0	-0.25	1.2	0.3	15.2	0.03	1.3	0.4	16	LA
3CQT46	15.1	14.9	15.3	14.9	15.0	-0.20	0.8	0.2	15.1	-0.06	0.8	0.5	16	XX
6GCMT2	15.1	15.0	15.3	14.9	15.1	-0.13	1.1	0.2	15.0	-0.16	1.1	0.3	16	LU
6XKGMV	16.0	15.9	16.2	15.2	15.9	1.24	1.1	0.4	15.9	1.12	1.2	0.4	15	LZ
83LPN9	16.0 L	16.8 L	16.3 L	15.8 L	16.2	1.88	0.3	0.4	16.6	2.14 *	0.2	0.8 H	16	BK
9BTQGM	27.2 XL	13.8 L	14.7 L	16.0 *L	17.9	4.85 X	0.2	6.3 H	17.5	3.41 X	0.1	4.7 H	16	XX
9PCFD4	14.8	14.7	14.4	14.8	14.7	-0.81	1.2	0.2	14.4	-1.13	1.2	0.3	16	LU
AQ7JKJ	16.0	16.2	16.3	15.7	16.1	1.59	1.3	0.3	16.1	1.32	1.3	0.3	4	TT
B2EN77	14.3	14.7	15.9	15.1	15.0	-0.27	1.0	0.7	14.6	-0.79	1.2	0.6	16	LA
ED726T	14.9	15.0	14.7	15.1	14.9	-0.42	1.1	0.2	14.8	-0.50	1.1	0.2	16	LB
FH9G62	14.6	14.3	14.6	14.2	14.4	-1.25	0.9	0.2	14.4	-1.05	0.8	0.4	16	LA
FQP7PV	14.7	No DATA	14.8	15.3	14.9	-0.42	1.9	0.3	14.5	-1.02	1.2	0.5	15	LB
G6GAMQ	15.3	15.5	15.2	14.7	15.2	0.04	1.0	0.3	15.4	0.32	1.1	0.5	12	LW
HV93KV	26.3 XL	27.2 XL	27.7 XL	27.3 XL	27.1	20.98 X	0.0	0.6	23.2	11.74X	4.1	5.5 H	12	LA
HVPEYU	14.6	15.0	14.8	14.7	14.8	-0.66	1.1	0.2	14.9	-0.36	1.2	0.6	16	LB
KN36RA	14.6	16.2	15.2	15.1	15.3	0.20	1.3	0.7	15.6	0.73	1.4	1.1 H	16	LA
L72KNU	15.8	16.6	15.9	No DATA	16.1	1.69	1.4	0.4	16.0	1.25	1.3	0.3	15	LW
M8R7WB	13.7 *L	14.3 L	13.8 *L	14.3 L	14.0	-2.01 *	0.0	0.3	14.1	-1.58	0.0	0.3	16	LA
MQGJ9E	14.9	14.9	15.1	15.2	15.0	-0.19	0.7	0.2	14.7	-0.62	0.8	0.3	16	TT
MVD2TL	14.9	15.1	14.8	15.0	14.9	-0.37	1.1	0.1	14.8	-0.47	1.1	0.2	16	LB
URN8N7	15.3	15.0	15.8	15.3	15.3	0.35	1.1	0.3	15.7	0.82	1.3	0.4	12	LA

Consensus (All Labs) Results											
Wk Mean	15.01	15.22	15.20	15.07	Month Mean	15.15				Grand Mean	15.15
Avg SDr	1.04	1.09	1.12	0.97	Avg SDr	1.10				Avg SDr	1.08
SD btwn Labs	0.62	0.80	0.69	0.46	SD btwn Labs	0.57				SD btwn Labs	0.68
Labs Includ	19	19	20	19	SD btwn Wks	0.35				SD btwn Wks	0.49
Labs Exclud	2	1	1	1	Labs Includ	19				Labs Includ	19
Labs not rcvd	0	1	0	1							

Instrument Code List as Reported by the Labs

- (BK) - Buchel Strip Compression Tester BK-155
- (LB) - L & W Model 152
- (LW) - L & W 53 with moisture correction (was 53M)
- (TT) - TMI Short Span Compression, 17-34 (MB K455)

- (LA) - L & W Autoline
- (LU) - L & W 52 without moisture correction (was 53)
- (LZ) - L & W (model not specified)
- (XX) - Instrument make/model not specified by lab