

Section 3 Testing Report

Material Supplied- Drumcal 41521 or FLX#58668

Equipment Used-Atlas Xenon Weather-ometer/PD4-294, Ball PD4-136, LVS Integra 9500 Barcode Quality Station/TECH-309, Salt Spray Cabinet, Light Box, Grey Scale

Results-

Conclusion-

FLEXcon label base material: Drumcal 41521 or FLX#58668 , meets the qualifications of BS 5609 Section Three

Test Method

Section Three

8.1 Print Key Effectiveness

Printed labels shall meet the following requirements

<5% print loss or lightening of print

Apply printed labels to a panel

Apply TBD tape to the printed are of the label. Must test black and red print

Leave tape on print for 15 seconds

Remove quickly at 90 angle

Observe for print removal

8.2 Abrasion resistance

Color fastness rating <2 from original hue. Must remain readable.

Prepared and abraded in accordance with appendix J and G. *Be sure to read instructions for placement of labelled and unlabeled rods in container

Apply labels to a 1" diameter rod, with a slight overlap of the label onto itself. Label must contain black and red print. Condition the labelled rod for 24 hours and then immerse in saline solution for 24 hours st RT

Mix 568 grams of water, with 199 grams of salt in a quart jar.

For every 8 parts by volume of the water/salt solution you add to a clean dry plastic quart jar, add 2 parts fine sand, until the jar is half full

Determine the speed on the ball mill that allows a quart jar to turn 20 to 25 revolutions per minute. Use this as your test speed.

Immerse labeled rod into water/salts/and solution, place on ball mill for 500 revolutions.

Remove observe for print appearance, lightening of print, and legibility

8.3 Permanence of Print: color fastness & residual contrast

Submitted to artificial weathering in accordance with appendix E



8.1

- Cross Hatch Film
- Apply Tape (remove at 90 angle quickly)
- <5% print loss, or lightening of print

8.1 Print key effectiveness	(a) the ink shall not be removed from more than 5% of the printed area of each color (b) despite any removal of ink, the maximum change in color intensity shall not be more than 3 when compared with an untested label	1) affixed to a smooth flat rigid surface (2) conditioned at 23±2° C for at least 24 hrs (3) tested in accordance with appendix H. *Pls see above for Appendix H.	a) the ink shall not be removed from more than 5% of the printed area of each color b) checked as described in appendix G using the grey scale of BS 1006: Section A02C Max. change in color intensity shall not be more than 3 when compared with an untested label Pls see above for Appendix G	600 Tape Pass 610 Tape Pass 810 Tape Pass Passes Requirement
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8.2 Abrasion Resistance

Apply labels to a 1” diameter rod, with a slight overlap of the label onto itself. Label has to contain black and red print. Mix 568 grams of water with 199 grams of salt in a quart jar.

<p align="center">G-1 ~ Grey Scale ~ 2/3</p>	<p align="center">Passes Requirement</p>
<p align="center">G-2 Colors are recognizable, printing is legible</p>	<p align="center">Passes Requirement</p>
<p align="center">FLEXcon Test** ~ Start Barcode Scan ~</p>	<p align="center">Sample 1 - Bar Code Not Detected Sample 2 - Bar Code Not Detected</p>
<p align="center">~ End Barcode Scan ~</p>	<p align="center">Sample 1 - 2.5/10/660 (B)</p>  <p align="right">IMG_3600.JPG</p> <p align="center">Sample 2 - 2.5/10/660 (B)</p>  <p align="right">IMG_3602.JPG</p> <p>Because barcode was not detected before, but was able to be scanned after, did a scan on a random sample. This sample had a reading of 3.2/10/660 (B). Do not know why barcode would not scan previous to test. I tried numerous times to no avail</p>
<p align="center">~ Visual ~ Black ink - Faded, but still recognizable as black</p>	<p align="center">Passes FLEXcon Requirement</p>
<p align="center">~ Visual ~ Red ink - Faded, but still recognizable as red</p>	<p align="center">Passes FLEXcon Requirement</p>

8.3 Permanence of Print: color fastness and residual contrast

Salt Spray Test

<p>G-1 ~ Grey Scale ~ 3/4</p>	<p>Passes Requirement</p>
<p>G-2 Colors are recognizable, printing, symbol are all legible. Some fading.</p>	<p>Passes Requirement</p>
<p><u>FLEXcon Test**</u> ~ Start Barcode Scan ~</p>	<p>~ Start Barcode Scan ~ 3.3/10/660 (B) ~ End Barcode Scan ~ 3.1/10/660 (B)</p>

~ Start Barcode Scan ~

Passes FLEXcon Requirement



IMG_3680.JPG

Sample 2

G-1

~ Grey Scale ~
3/4

Passes Requirement

G-2

Colors are recognizable, printing, symbol are all legible.
Some fading.

Passes Requirement

FLEXcon Test**

~ Start Barcode Scan ~

3.6/10/660 (A)

~ End Barcode Scan ~

3.5/10/660 (A)

Passes FLEXcon Requirement



IMG_3682.JPG

Sample 3

G-1

~ Grey Scale ~
3/4

Passes Requirement

Sample 3

G-1

~ Grey Scale ~
3/4

Passes Requirement

G-2

Colors are recognizable, printing, symbol are all legible.
Some fading.

Passes Requirement

FLEXcon Test**

~ Start Barcode Scan ~

3.2/10/660 (B)

~ End Barcode Scan ~

3.5/10/660 (A)

Passes FLEXcon Requirement



IMG_3684.JPG

8.4fitness for Use

Printed labels will be capable of complying with the requirements of 8.1, 8.2, and 8.3 for atleast 12 months