

# MARSHALL LABORATORIES, INC.

2060 Palmetto St. • Clearwater, FL 33765 • Phone (727) 443-2771 • FAX (727) 443-2777

## OBJECTIVE

To evaluate product DC 315 using the test methods listed below. The product was supplied by International Fireproof Technology, Inc. is part of WHI 3rd party inspection program. The DC315 used on this test is labeled and marked as listed, inspected and certified product. WHI S/N 20947 was listed on the label of the pails received by Marschall Labs Inc. and used for this testing.



	DC 315
ASTM D4400 Sag Resistance 4 - 24 Mils 14 - 60 Mils	> 24 Mils 35 Mils
ASTM D522 Flexibility, Mandrel Bend - Steel Panels	Pass 3/8"
ASTM D4541 Adhesion, Pull-Off Strength (1) - Concrete	200 psi
ASTM D4585 Moisture Resistance, 100 Hours (1) - Treated Aluminum Blistering Loss of Adhesion Wrinkling General Appearance	10 - None None None Excellent
ASTM D2794 Impact Resistance, 7 Days Dry - Steel Panels Direct, Inch - Pounds	30

Indirect, Inch-Pounds	10
ASTM D4541 Adhesion, Pull-Off Strength (1) - SPF B	50 psi - Substrate failed, coating adhered to substrate.
ASTM D3359 Tape Adhesion, (1) - SPF B	5B - Substrate delaminated but coating adhered to substrate.
<p>ASTM D4587 / ASTM G154 Accelerated Weathering QUV, 1000 Hours (1) - Treated Aluminum  4 Hours UVA 240 @ 60C / 4 Hours Condensation at 50C</p> <p>Gloss Change, Visual  Initial 85 Degree Gloss  85 Degree Gloss, After</p> <p>ASTM D1729 Visual Color Change  DE - Total Color Change</p> <p>ASTM D4214 Degree of Chalking  ASTM D661 Degree of Cracking</p>	<p>None  3.3  3.3</p> <p>10 (None)  0.4</p> <p>10 (None)  10 (None)</p>
<b>Adhesion testing with and without primer</b>	<b><u>Panels were cured at 75 degrees F and 50% RH for 14 days</u></b>
<p>ASTM D3359 Tape Adhesion  Test 1  SPF Foam - DTM Primer - 3 Wet Mils / DC 315 - 24 Wet Mils</p> <p>Test 2  Smooth Textured SPF Foam - DC 315 - 24 Wet Mils</p>	<p>5A - No peeling.</p> <p>5A - No peeling.</p>

Adhesion after weather testing (500 hrs)	<u>Panels were cured at 75 degrees F and 50% RH for 14 days</u>	<u>Panels were weathered in a QUV Apparatus cycling 4 hours condensation and 4 hours UV (UVA 340 Bulbs) for 500 total hours.</u>
ASTM D3359 Tape Adhesion <u>Test 1</u> SPF Foam - DTM Primer - 3 Wet Mils / DC 315 - 24 Wet Mils <u>Test 2</u> SPF Foam A - DC 315 - 24 Wet Mils <u>Test 3</u> SPF Foam - DTM Primer - 3 Wet Mils / DC 315 - 24 Wet Mils <u>Test 4</u> SPF Foam B - DC 315 - 24 Wet Mils	5A - No peeling. 2A - 15%- 35% of coating removed. 5A - No peeling. 3A - 5%- 15% of coating removed.	5A - No peeling. 3A - 5%- 15% of coating removed. 5A - No peeling. 3A - 5%- 15% of coating removed.

All panels were cured at 75 degrees F and 50% RH for 21 days



Dan Marschall  
 Marschall Labs Inc.  
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