



PERFORMANCE CRITERIA	Page: 1 of 4
	US Revision: 0
RD-ELASTOMETAL	Date: 08/15/2013
	Supersedes: 00/00/00
	S4

ABRASION

METHOD: ASTM-D968 – By Falling Abrasive using 100kg Ottawa Sand

RESULT:	<u>Initial Film Thickness</u>	<u>Final Film Thickness</u>	<u>Loss of Thickness</u>
	341 um, dft	314 um, dft	27 um
	345 um, dft	340 um, dft	5 um
	344 um, dft	339 um, dft	5 um

Note: 25.4 um = 1 mil

METHOD: ASTM-D4060 - CS-17 Wheels / 1,000g Load / 1,000 Cycles

RESULT: 29mg loss

ADHESION

METHOD: ASTM D4541 – Pull-Off Strength

RESULT: 700psi over SP-10 Steel Surface
615psi over SP-12 Steel Surface

CHEMICAL RESISTANCE

METHOD: Chemical Spot Testing: Drops of a liquid are placed under a watch glass onto the cured coated surface. Examination of the coating was conducted after 1 day, 1 week, 2 weeks and 1 month. Examined liquids: Na OH solution of pH 12, Na OH solution of pH 13.

RESULT: No alteration of the coating after 1 day, 1 week, 2 weeks and 1 month.

METHOD: ISO 3231 - 3 coated panels are tested, 2 of the 3 are scratched to bare metal using a cross cut. The panels are subjected to 30 cycles of 8hrs @ 40°C/104°F and 100% RH with SO₂, then 16hrs @ room temperature @ <75% RH without SO₂.

RESULT:	<u>Unscratched Panel</u>	<u>Scratched Panels</u>
	Some white stain on surface, but no effect on Coating.	Some white stain on surface, with white corrosion n scratch. No undercutting of coating film @ scratch.

CORROSION RESISTANCE

METHOD: ASTM B 117 - Salt Fog Testing

RESULT: No blistering, cracking or delamination of film after 1,000 hours exposure.



PERFORMANCE CRITERIA	Page: 2 of 4
	US Revision: 0
RD-ELASTOMETAL	Date: 08/15/2013
	Supersedes: 00/00/00
	S4

CYCLICAL WEATHERING

METHOD: ASTM D 5894, Panels were prepared to SP5, then allowed to weather outdoors for 3 weeks with periodic water application to form uniform corrosion over panels. Panels were cleaned by high pressure water jetting with 5,000 psi (SSPC-SP12, Level WJ4). The panels were then coated with 2 coats of material and cured at ambient conditions for 10 days. The panels were then alternated for 1 week periods between a Q-Fog Chamber, exposed to 1 hr. cycles of a dilute solution of ammonium sulphate and then sodium chloride, then to a QUV Cabinet, exposing them to alternating periods of ultra violet light moisture at an elevated temperature.

RESULT: No alteration of the coating, with no rusting or blistering; after 1 day, 1 week, 2 weeks and 1 month.

FLEXIBILITY & ELONGATION

METHOD: ASTM D412 – Tensile Strength Properties of Rubber and Elastomers

RESULT:	<u>Peak Tensile Strength</u>	<u>Elongation at Break</u>
	Reinforced – 1,030psi	Reinforced – 150%
	Non-Reinforced – 210psi	Non-Reinforced – 210%

HARDNESS

METHOD ASTM D 2240 Shore A Hardness Test –“Standard Test Method for Rubber Property Durometer Hardness”. Coating thickness, approximately 13 mils DFTt.

RESULT: Shore Hardness; 90, average 5 trials.

HIGH TEMPERATURE RESISTANCE

METHOD: ASTM-D2485 – Evaluating coatings for high temperatures, coated panels are exposed to 50°C /122°F, 75 °C/ 167°F and 100°C / 212°F for 24 hours at a time at each temperature. Then allowed to cool both in air and separately in water for 1 hour at room temperature. After cooling, the adhesion is tested per ASTM D3359 and the bending is tested around a 12mm diameter cylinder per ISO 1519.

RESULTS:	<u>Temperature</u>	<u>Cooling</u>	<u>Adhesion/Bending</u>
	50°C / 122°F	Water & Air	5B/ Unchanged
	75°C / 167°F	Water & Air	5B/ Unchanged
	100°C / 212°F	Water & Air	5B/ Unchanged

IMMERSION

METHOD: ASTM-D870 – Panels are immersed in demineralized water at room temperature.

RESULT: No effect after 12 months of continuous immersion.



PERFORMANCE CRITERIA	Page: 3 of 4
	US Revision: 0
RD-ELASTOMETAL	Date: 08/15/2013
	Supersedes: 00/00/00
	S4

IMPACT

METHOD: ASTM D2794 – An indenter weighting 1kg is dropped to deform the coating and substrate. Coating thickness, approximately 13 mils, dft.

RESULT: 10 NM Impact Resistance

METHOD: ISO 1520 – Cupping Test; a coated panel is impacted by means of a ball (hemispheric, diameter 20mm) until the cracking of the coating and/or the panel occurs. The depth of the indentation is the value of the flexibility of the coating. Coating film thickness varied from 331 μ to 337 μm (approximately 13 mils DFT).

RESULT: Depth = 12.65 mm (approximately 1/2”) The steel panel ruptures, coating did not crack and no detachment of coating.

LEAD ENCAPSULATION

METHOD: ASTM E 1795 – Non-reinforced liquid coating encapsulation products for leaded paint in buildings, Type III either exterior or interior use. Applied to 4- 5 mils DFT, in two coats (detail coats) with an overnight dry between coats. Afterwards a third coat (cover coat) at 7-8 mils DFT was applied. The coated test panels were allowed to dry a minimum of 14-days at standard conditions before testing.

RESULT: Conforms to the requirements stated in Table 1 of ASTM E-1795-04, Standard Specification for Non-reinforced liquid coating encapsulation products for leaded paint in buildings, Type III either exterior or interior use, to the extent tested.

SULFUR DIOXIDE TEST

METHOD: ISO 3231 - 3 coated panels are tested, 2 of the 3 are scratched to bare metal using a cross cut. The panels are subjected to 30 cycles of 8hrs @ 40°C/104°F and 100% RH with SO₂, then 16hrs @ room temperature @ <75% RH without SO₂.

RESULT:	<u>Unscratched Panel</u>	<u>Scratched Panels</u>
	Some white stain on surface, but no effect on Coating.	Some white stain on surface, with white corrosion n scratch. No undercutting of coating film @ scratch.

SURFACE BURNING CHARACTERISTICS

METHOD: ASTM-E 84 - 3 panels were prepared by applying the material to 1/4-inch thick fiber-reinforced cement board at a thickness of 28-32 mils. After drying overnight they were transferred to storage racks and conditioned in an atmosphere with the temperature maintained at 71 ± 2°F and the relative humidity at 50 ± 5 percent. For testing, the panels were placed end-to-end on the ledges of the tunnel furnace and tested with no auxiliary support mechanism.

RESULT: Class A Fire Rating under the National Fire Protection Association publication NFPA 101 Life Safety Code



PERFORMANCE CRITERIA	Page: 4 of 4
	US Revision: 0
RD-ELASTOMETAL	Date: 08/15/2013
	Supersedes: 00/00/00
	S4

WATER VAPOR TRANSMISSION

METHOD: ASTM-D1653 – Water transmission of organic coating films. Test method B, wet cup method. Coating thickness, approximately 14 mils, dft.

RESULT: 9.9 grams/24hours - This Equals: 0.3perms / 0.2 metric perms.