ENDURA-HEAT™ ZR

PRODUCT DATA SHEET

SERIES 1505

PRODUCT PROFILE

GENERIC DESCRIPTION
Silicone Zinc Copolymer

COMMON USAGE
A high-performance, two-component, zinc-rich, silicone copolymer that offers galvanic protection to steel substrates for extended corrosion protection up to 1000°F (538°C). An excellent primer for use with selected topcoats as part of a corrosion- and heat-resistant coating system. Requires an exceptionally low minimum 250°F (121°C) heat cure prior to placing in service.

COLORS
Greenish-Gray

ZINC PIGMENT
84% by weight in dried film

FINISH
Flat

SPECIAL QUALIFICATIONS
Series 1505 uses a zinc pigment which meets the requirements of ASTM D 520 Type III and contains less than .002% lead.

COATING SYSTEM

TOPCOATS
Series 1552, 1556, 1558

SURFACE PREPARATION

STEEL
SSPC-SP6/NACE 3 Commercial Blast Cleaning or ISO Sa 2 Thorough Blast Cleaning with a minimum angular anchor profile of 1.0 mil and maximum angular anchor profile of 2.0 mils.

ALL SURFACES
Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS
41% (mixed)

RECOMMENDED DFT
2.0 to 3.0 mils (50 to 75 microns) per coat.

CURING TIME

<table>
<thead>
<tr>
<th>Temperature</th>
<th>To Touch</th>
<th>To Handle</th>
<th>To Topcoat</th>
<th>To Place in Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>75°F (24°C)</td>
<td>1 hour</td>
<td>2 hours</td>
<td>1 to 2 hours</td>
<td>12 hours</td>
</tr>
</tbody>
</table>

Important: Allow Series 1505 to ambient cure for 12 hours prior to heat cure. Reference the heat cure table below. Curing time varies with surface temperature, air movement, humidity and film thickness.

HEAT CURE

<table>
<thead>
<tr>
<th>Cure Time</th>
<th>Minimum Temperature</th>
<th>Maximum Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 hours</td>
<td>250°F (121°C)</td>
<td>500°F (260°C)</td>
</tr>
<tr>
<td>1 hour</td>
<td>475°F (246°C)</td>
<td>500°F (260°C)</td>
</tr>
</tbody>
</table>

VOLATILE ORGANIC COMPOUNDS

TBAC Exempt:
Unthinned: 3.30 lbs/gallon (396 grams/litre)
Thinned 10% (No. 80 Thinner): 3.71 lbs/gallon (445 grams/litre)
Thinned 10% (No. 81 Thinner): 3.76 lbs/gallon (451 grams/litre)
Thinned 10% (No. 82 Thinner): 3.86 lbs/gallon (462 grams/litre)

Note: This product is not compliant in air districts that do not allow TBAC exemption.

THEORETICAL COVERAGE

658 mil sq ft/gal (61.1 m²/L at 25 microns). See APPLICATION for coverage rates.

NUMBER OF COMPONENTS
Two: Part A and Part B

PACKAGING

<table>
<thead>
<tr>
<th></th>
<th>Part A (partially filled)</th>
<th>Part B (partially filled)</th>
<th>Yield (mixed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Kit</td>
<td>1 gal can</td>
<td>1 gal can</td>
<td>1 gallon (3.79 L)</td>
</tr>
</tbody>
</table>

NET WEIGHT PER GALLON
19.58 ± 0.25 lbs (78.88 ± 11 kg) (mixed)

STORAGE TEMPERATURE
Minimum 30°F (-1°C)  Maximum 110°F (43°C)

TEMPERATURE RESISTANCE
(Dry) Continuous 1000°F (538°C)  Intermittent 1200°F (649°C)

SHELF LIFE
24 months at recommended storage temperature.

FLASH POINT - SETA
60°F (16°C)

HEALTH & SAFETY

Avoid contact with skin, eyes and clothing. Wear protective clothing and respiratory protection when handling.

Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Safety Data Sheet for important health and safety information prior to the use of this product.

Keep out of the reach of children.

Published technical data and instructions are subject to change without notice. The online catalog at www.tnemec.com should be referenced for the most current technical data and instructions or you may contact your Tnemec representative for current technical data and instructions.

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## Application

### Coverage Rates

<table>
<thead>
<tr>
<th></th>
<th>Dry Mils (Microns)</th>
<th>Wet Mils (Microns)</th>
<th>Sq Ft/Gal (m²/Gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>2.0 (50)</td>
<td>5.0 (120)</td>
<td>329 (30.6)</td>
</tr>
<tr>
<td>Maximum</td>
<td>3.0 (75)</td>
<td>7.0 (185)</td>
<td>219 (20.4)</td>
</tr>
</tbody>
</table>

Allow for overspray and surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of the coating below minimum or above maximum recommended dry film thickness may adversely affect coating performance.

### Mixing

Always use the entire contents of A and B components. Use an air-driven power mixer and keep material under constant agitation while mixing. Slowly sift Part B powder into Part A liquid. **Do not reverse this procedure.** For spray application, keep under low RPM agitation to prevent settling. For brush and roller application, stir frequently to prevent settling.

### Thinning

Not normally required. For air spray or airless spray applications below 80°F (26°C), thin up to 10% with No. 80 Thinner. For applications exceeding 80°F (26°C), thin up to 10% with No. 81 Thinner. For brush or roller applications, thin 5% to 10% with No. 82 Thinner.

### Application Equipment

#### Air Spray

<table>
<thead>
<tr>
<th>Gun</th>
<th>Fluid Tip</th>
<th>Air Cap</th>
<th>Air Hose ID</th>
<th>Mat'l Hose ID</th>
<th>Atomizing Pressure</th>
<th>Pot Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeVilbiss MBC or JGA</td>
<td>E</td>
<td>765 or 78</td>
<td>5/16&quot; or 3/8&quot; (7.9 or 9.5 mm)</td>
<td>3/8&quot; or 1/2&quot;</td>
<td>60-80 psi</td>
<td>15-20 psi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(9.5 or 12.7 mm)</td>
<td>(4,5-5.5 bar)</td>
<td></td>
<td>(1.0-1.4 bar)</td>
</tr>
</tbody>
</table>

#### Airless Spray

<table>
<thead>
<tr>
<th>Pump</th>
<th>Tip Orifice</th>
<th>Pump Pressure</th>
<th>Mat'l Hose ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>30:1, 45:1, 60:1</td>
<td>0.021&quot;-0.025&quot; (533-635 microns)</td>
<td>1800 Psi (124 bar)</td>
<td>3/8&quot; (9.5 mm)</td>
</tr>
</tbody>
</table>

**Roller:** Recommended for small areas only. Use 1/4" or 3/8" (6.3 mm to 9.5 mm) high quality synthetic woven nap covers.

**Brush:** Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

### Surface Temperature

Minimum 45°F (7°C)  Maximum 125°F (52°C)

### Cleanup

Flush and clean all equipment immediately after use with the recommended thinner or xylene.