



# ENDURA-HEAT™ DTM SERIES 1558

## PRODUCT PROFILE

<b>GENERIC DESCRIPTION</b>	Modified Silicone Copolymer
<b>COMMON USAGE</b>	A versatile silicone copolymer coating applied direct-to-metal (DTM) or as a topcoat in high-temperature coating systems. Its high-build characteristics and corrosion-inhibitive pigments provide protection to steel substrates up to 1000°F (538°C). Wide color options and superior adhesion to marginally prepared substrates make it an excellent choice for use throughout refineries, power plants, petrochemical facilities, and treatment plants. Requires a 350°F (177°C) heat cure prior to placing in service.
<b>COLORS</b>	Endura-Heat Standard and Custom Colors Available. Additional lead time will be required for custom colors. <b>Important:</b> Due to the product's high heat exposure, sheen and color variations may occur. However, these changes are aesthetic only and will not affect performance. Contact your Tnemec representative for more information.
<b>FINISH</b>	Flat

## COATING SYSTEM

**PRIMERS** Self-priming, 1505, 1528

## SURFACE PREPARATION

<b>STEEL</b>	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 2.0 mils. <b>Note:</b> Abrasive blast cleaning generally produces the best coating performance. If conditions will not permit this, Series 1558 may be applied to SSPC-SP2 or SSPC-SP3 Hand or Power Tool Cleaned surfaces in maintenance situations where mill scale has previously been removed.
<b>ALL SURFACES</b>	Must be clean, dry and free of oil, grease and other contaminants.

## TECHNICAL DATA

<b>VOLUME SOLIDS</b>	52 ± 2.0% (mixed)
<b>RECOMMENDED DFT</b>	<b>Standard Direct To Metal Service:</b> 6.0 to 8.0 mils (150 to 200 microns). Can be achieved in two coats. <b>Topcoat Service:</b> 2.0 to 3.0 mils (50 to 75 microns). <b>Note:</b> When Series 1558 is used as a topcoat, refer to the primer product data sheet for more information.
<b>CURING TIME</b>	

Temperature	To Touch	To Handle	To Place in Service
75°F (24°C)	30 minutes	4 to 6 hours	24 hours

**Important:** Allow Series 1558 to ambient cure for 24 hours prior to placing in service. Material will not be fully cured until service temperature reaches 350°F (176°C).

<b>VOLATILE ORGANIC COMPOUNDS</b>	<p><b>Unthinned:</b> 2.81 lbs/gallon (337 grams/litre)</p> <p><b>Thinned 10% (No. 80 Thinner):</b> 3.18 lbs/gallon (381 grams/litre)</p> <p><b>Thinned 10% (No. 81 Thinner):</b> 3.22 lbs/gallon (385 grams/litre)</p> <p><b>Thinned 10% (No. 82 Thinner):</b> 3.29 lbs/gallon (394 grams/litre)</p> <p><b>Thinned 12% (No. 83 Thinner):</b> 3.48 lbs/gallon (417 grams/litre)</p> <p><b>Thinned 40% (No. 83 Thinner):</b> 4.60 lbs/gallon (552 grams/litre)</p>
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**THEORETICAL COVERAGE** 834 mil sq ft/gal (77.5 m<sup>2</sup>/L at 25 microns). See APPLICATION for coverage rates.

**NUMBER OF COMPONENTS** One

**PACKAGING** 5 gallon (18.9 L) pails and 1 gallon (3.79L) cans.

**NET WEIGHT** 11.23 ± 0.25 lbs (5.09 ± .11 kg)

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

**TEMPERATURE RESISTANCE** (Dry) Continuous 1000°F (538°C)

**SHELF LIFE** 24 months at recommended storage temperatures.

**FLASH POINT - SETA** 70°F (21°C)

**HEALTH & SAFETY** 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.**

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**APPLICATION**

**COVERAGE RATES**

**Standard Direct To Metal Service**

	Dry Mills (Microns)	Wet Mills (Microns)	Sq Ft/Gal (m <sup>2</sup> /Gal)
Minimum	6.0 (150)	11.0 (290)	139 (12.9)
Maximum	8.0 (200)	15.0 (390)	104 (9.7)

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.

**Topcoat Service**

	Dry Mills (Microns)	Wet Mills (Microns)	Sq Ft/Gal (m <sup>2</sup> /Gal)
Minimum	2.0 (50)	4.0 (100)	417 (38.8)
Maximum	3.0 (75)	6.0 (150)	278 (25.8)

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  
THINNING**

Stir thoroughly, making sure no pigment remains on the bottom of the can.

Thinning is not normally required. If thinning is desired, reference thinning options below. **Note:** Do not combine thinners; only one thinner should be used during each application. Reference the charts below for application recommendations.

**Air Spray or Airless Spray**

Ambient Temperature	Standard Application	Hot Application
Below 80°F (27°C)	No. 80 Thinner up to 10%	N/A
Above 80°F (27°C)	No. 81 Thinner up to 10%	NA

**Brush or Roller:** For standard applications, thin 5% to 10% with No. 82 thinner.

**Air Spray, Airless Spray, Brush or Roller**

Substrate Temperature	Standard Application	Hot Application
200°F (93°C)	N/A	No. 83 Thinner at 10% to 25%
300°F (149°C)	N/A	No. 83 Thinner at 15% to 30%
400°F (204°C)	N/A	No. 83 Thinner at 20% to 35%
500°F (260°C)	N/A	No. 83 Thinner at 25% to 40%

**Note:** For applications above 200°F (93°C), contact Tnemec Technical Services for specific application information.

**APPLICATION EQUIPMENT**

**Air Spray**

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss MBC or JGA	E	765 or 78	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	60-80 psi (4.1-5.5 bar)	15-20 psi (1.0-1.4 bar)

**Airless Spray**

Pump	Tip Orifice	Pump Pressure	Mat'l Hose ID
30:1	0.011"-0.013" (279-330 microns)	1800-2100 Psi (124-144 bar)	3/8" (9.5 mm)

**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 200°F (93°C)

**Note:** For surface temperatures exceeding 200°F (93°C), reference the hot application thinning recommendations and contact Tnemec Technical Services for specific application parameters.

**CLEANUP**

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

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