



# ENDURA-HEAT™ DTM SERIES 1528

## PRODUCT PROFILE

**GENERIC DESCRIPTION** Inert Multipolymeric Matrix

**COMMON USAGE** An advanced, inert multipolymeric chemistry that provides high-performance direct-to-metal (DTM) coating protection to steel and stainless steel substrates in elevated temperatures up to 1200°F (648°C). Exceptional adhesion properties allow the coating to withstand severe thermal cycling (-300 to 1200°F), and its tolerance to marginally prepared substrates make it a viable alternative when abrasive blasting is not permitted. Its high-build feature and resistance to cyclic conditions make it an excellent coating system on pitted steel and for protecting against corrosion under insulation (CUI). Dry-fall spray characteristic provides fast, labor-saving coating application when used with appropriate thinner.

**COLORS** Black, Gray, Aluminum. **Note:** Aluminum should not be topcoated except with itself.

**FINISH** Flat

**SPECIAL QUALIFICATIONS** Meets NACE SP0198-10 requirements SS-4, SS-5, CS-6 and CS-8.

## COATING SYSTEM

**PRIMERS** Self-priming

**TOPCOATS** Series 1552, 1558. **Note:** Series 1552 may be used as a topcoat over Series 1528 for applications up to 500°F (260°C); Series 1558 may be used as a topcoat over Series 1528 for applications up to 1000°F (538°C).

## SURFACE PREPARATION

**STEEL** **Exterior Exposure:** SSPC-SP6/NACE 3 Commercial Blast Cleaning or ISO Sa 2 Thorough Blast Cleaning with a minimum angular anchor profile of 1.5 mils and a maximum angular anchor profile of 3.0 mils. **Note:** Abrasive blast cleaning generally produces the best coating performance. If conditions will not permit this, Series 1528 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. **Under Insulation:** SSPC-SP10/NACE 2 Near-White Blast Cleaning or ISO Sa 2 1/2 Very Thorough Blast Cleaning is required.

**STAINLESS STEEL** For specific instructions contact Tnemec Technical Services.

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

## TECHNICAL DATA

**VOLUME SOLIDS** 65%

**RECOMMENDED DFT** **Standard Direct to Metal Service:** 4.0 to 8.0 mils (100 to 200 microns) per coat. Two coats may be required for severe conditions.  
**Under Insulation Service:** 6.0 to 8.0 mils (150 to 200 microns) per coat, two coats required.

**CURING TIME**

Temperature	To Handle	To Recoat	To Topcoat	To Place in Service
75°F (24°C)	12 hours	6 hours	24 hours	24 hours

**Important:** Allow Series 1528 to ambient cure for 24 hours prior to placing in service. Curing time varies with surface temperature, air movement, humidity and film thickness.

**VOLATILE ORGANIC COMPOUNDS**

DMC Exempt:  
**Unthinned:** 3.33 lbs/gallon (399 grams/litre)  
**Thinned 4% (No. 80 Thinner):** 3.47 lbs/gallon (416 grams/litre)  
**Thinned 10% (No. 80 Thinner):** 3.67 lbs/gallon (439 grams/litre)  
**Thinned 4% (No. 81 Thinner):** 3.49 lbs/gallon (418 grams/litre)  
**Thinned 10% (No. 81 Thinner):** 3.71 lbs/gallon (444 grams/litre)  
**Thinned 10% (No. 82 Thinner):** 3.78 lbs/gallon (453 grams/litre)  
**Thinned 15% (No. 85 Thinner):** 3.33 lbs/gallon (399 grams/litre)  
**Thinned 15% (No. 86 Thinner):** 3.33 lbs/gallon (399 grams/litre)  
**Thinned 75% (No. 84 Thinner):** 5.15 lbs/gallon (618 grams/litre)  
**Note:** This product is not compliant in air districts that do not allow DMC exemption.

**THEORETICAL COVERAGE** 1,043 mil sq ft/gal (96.9 m<sup>2</sup>/L at 25 microns). See APPLICATION for coverage rates.

**NUMBER OF COMPONENTS** One

**PACKAGING** 5 gallon pail yielding 3 gallons (11.35 L) and 1 gallon can yielding 1 gallon (3.79 L).

**NET WEIGHT PER GALLON** 16.69 ± 0.25 lbs (7.57 ± .11 kg)

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

**TEMPERATURE RESISTANCE** (Dry) Continuous: Minimum -300°F (-184°C) Maximum 1200°F (649°C)

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

**FLASH POINT - SETA** 105°F (41°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.**

## APPLICATION

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**COVERAGE RATES**

	Dry MILS (Microns)	Wet MILS (Microns)	Sq Ft/Gal (m <sup>2</sup> /Gal)
Minimum	4.0 (100)	6.0 (155)	261 (24.2)
Maximum	8.0 (200)	12.0 (310)	130 (12.1)

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**

Power mix the contents of the container, making sure no pigment remains at the bottom.

**THINNING**

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	Dry-Fall Application
Below 80°F (27°C)	No. 80 Thinner up to 10%	No. 85 Thinner 10% to 15%
Above 80°F (27°C)	No. 81 Thinner up to 10%	No. 86 Thinner 10% to 15%

**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. 84 Thinner at 10% to 25%
300°F (149°C)	N/A	No. 84 Thinner at 15% to 30%
400°F (204°C)	N/A	No. 84 Thinner at 20% to 35%
500°F (260°C)	N/A	No. 84 Thinner at 25% to 40%
600°F (315°C)	N/A	No. 84 Thinner at 30% to 50%
750°F (399°C)	N/A	No. 84 Thinner at 50% to 75%

**Note:** For applications above 200°F (293°C), contact Tnemec Technical Services for specific application information.

**APPLICATION EQUIPMENT**

**Air Spray**

Gun	Fluid Tip	Air Cap	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss MBC-510	E	704	3/8" (9.5 mm)	70 psi (4.8 bar)	60 psi (4.1 bar)

**Airless Spray (Standard Applications)**

Gun	Pump	Tip Orifice	Pump Pressure	Mat'l Hose ID
Graco 205-591	30:1, 45:1, 60:1	0.015"-0.021" (381-533 microns)	3000 Psi (206 bar)	3/8" (9.5 mm)

**Airless Spray (Dry Fall Applications)**

Gun	Pump	Tip Orifice	Pump Pressure	Mat'l Hose ID †
Graco 205-591	30:1, 45:1, 60:1	0.017" (432 microns)	1800-2100 Psi (124-145 bar)	3/8" (9.5 mm)

† Whip line is not required.

**Roller:** 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.

**CAUTION**

Dry overspray can be wiped or washed from most surfaces. Satisfactory dry-fall performance depends upon height of work, weather conditions and equipment adjustment. Low temperature and high humidity are of particular concern. Test for each application as follows: Spray from 15 to 25 feet towards paint container. The material then should readily wipe off. **Note:** Heat can fuse-dry overspray to surfaces. Always clean dry overspray from hot surfaces before fusing occurs. Be aware that exterior surface temperatures can be higher than air temperature.

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