



OMNITHANE® SERIES 1

PRODUCT PROFILE

GENERIC DESCRIPTION	Modified Aromatic Polyurethane Primer
COMMON USAGE	A single component, moisture-cured resin, containing a proprietary blend of micaceous iron oxide and zinc to function as a primer which is field and shop friendly. May be used in OEM manufacturing, potable water and wastewater immersion with the proper topcoats. May also be used for marginally prepared rusty steel and tightly adhering old coatings for non-immersion maintenance situations.
COLORS	1216 Grayish-Green
SPECIAL QUALIFICATIONS	NSF: Certified in accordance with ANSI/NSF Std. 61 for potable water applications (for tanks of 1,000 gallons capacity or greater, pipes 36 inches in diameter or greater or valves 4 inches in diameter or greater) when topcoated (with or without 44-710 Urethane Accelerator) with Std. 61 certified Tnemec coatings. AISC: Meets AISC requirements for Class B surface with a mean slip coefficient no less than 0.50 and tension creep not in excess of .005 inches (.13 mm) (SSPC-SP5/NACE 1 & SSPC-SP3). Note: Using other products as primers or topcoats voids AISC requirements. Contact your Tnemec representative for specific recommendations.
PERFORMANCE CRITERIA	Contact your Tnemec representative for specific test results.

COATING SYSTEM

SURFACER/FILLER/PATCHER	Series 218, 219. For additional information contact Tnemec Technical Services.
PRIMERS	Self-priming, 90-97, 91-H ₂ O, 94-H ₂ O
TOPCOATS	Series 1 may be topcoated with a multitude of high performance coatings which include (but are not limited to) Series 1, 20, FC20, 25, 27, 35, 46H-413, 66, N69, N69F, 73, 104, 113, 114, 115, N140, N140F, 161, 400, 406, 1028, 1029, 1074, 1075. Note: If Series 1 is exterior exposed for 1 year or more it must be scarified or recoated with itself before topcoating. Scarification or recoating with itself is required if the Series 1 has been exterior exposed for 3 days or longer and Series 113 is the specified topcoat. Note: Series 25, 35 and 115 require the use of Series 44-900 adhesion promoter when topcoating Series 1. Note: Certain topcoat colors may not provide one coat hiding depending on method of application. Contact your Tnemec representative.

SURFACE PREPARATION

STEEL	Immersion & Severe Exposure: SSPC-SP10/NACE No. 2 Near-White Blast Cleaning. Non-Potable, Non-Immersion Service: Exterior Exposure: SSPC-SP6/NACE No. 3 Commercial Blast Cleaning. Interior Exposure: SSPC-SP3 Power Tool Cleaning.
STEEL MAINTENANCE	Abrasive blast cleaning produces the best coating performance. If conditions will not permit this, Series 1 may be applied over SSPC-SP2 or SP3 Hand or Power Tool Cleaned surfaces in non-potable, non-immersion environments.
GALVANIZED STEEL	Surface preparation recommendations will vary depending on substrate and exposure conditions. Contact your Tnemec representative or Tnemec Technical Services.
DUCTILE IRON	Recommended for immersion and exterior exposure. Please contact your Tnemec representative for specific recommendations.
CONCRETE	Allow new concrete to cure for 28 days. For optimum results, abrasive blast referencing SSPC-SP13/NACE 6 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide (Reference ICRI CSP3-5). Contact your Tnemec representative for specific recommendations.
PAINTED SURFACES	Test patch is recommended.
ALL SURFACES	Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS	61.0 ± 2.0% (mixed)
RECOMMENDED DFT	2.5 to 3.5 mils (65 to 90 microns) per coat. Note: NSF certification maximum: 3.5 mils.
CURING TIME	Without 44-710

Temperature †	To Touch	To Handle	To Recoat
70°F (21°C)	1/4 hour	1 1/2 hours	2 hours
60°F (16°C)	1/4 hour	2 3/4 hours	2 3/4 hours
50°F (10°C)	1/4 hour	5 hours	5 hours

† 50% Relative Humidity. Curing time will vary with surface temperature, humidity and film thickness.
Note: When recoating Series 1 with topcoats other than itself, the minimum recoat time is 16 hours.
Ventilation: When used in enclosed areas, provide adequate ventilation during application and cure.

With 44-710: The use of 44-710 can greatly reduce recoat times. Reference the 44-710 Urethane Accelerator product data sheet. **Note:** Series 44-710 Accelerator must be used when the surface temperature falls below 50°F (10°C).

VOLITILE ORGANIC COMPOUNDS	Unthinned: 2.79 lbs/gallon (334 grams/litre) Thinned 10% (No. 2 or 3 Thinner): 3.20 lbs/gallon (383 grams/litre) Thinned 10% (No. 49 Thinner): 2.79 lbs/gallon (334 grams/litre)
HAPS	Unthinned: 0.00 lbs/gal solids Thinned 10% (No. 2 Thinner): 1.19 lbs/gal solids Thinned 10% (No. 3 Thinner): 0.04 lbs/gal solids Thinned 10% (No. 49 Thinner): 0.00 lbs/gal solids
THEORETICAL COVERAGE	978 mil sq ft/gal (24.0 m ² /L at 25 microns). See APPLICATION for coverage rates.
NUMBER OF COMPONENTS	One

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PACKAGING	Five-gallon (18.9L) pails (yielding 3 gallons) and one-gallon (3.79L) cans
NET WEIGHT PER GALLON	21.10 ± 0.60 lbs (9.57 ± .27 kg)
STORAGE TEMPERATURE	Minimum 20°F (-7°C) Maximum 110°F (43°C)
TEMPERATURE RESISTANCE	(Dry) Continuous 250°F (121°C) Intermittent 300°F (149°C)
SHelf LIFE	12 months at recommended storage temperature.
FLASH POINT - SETA	85°F (29°C)
HEALTH & SAFETY	Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product. Keep out of the reach of children.

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Suggested	3.0 (75)	5.0 (125)	326 (30.3)
Minimum	2.5 (65)	4.0 (100)	391 (36.4)
Maximum	3.5 (90)	5.5 (140)	284 (26.4)

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

MIXING

Stir thoroughly making sure no pigment remains on the bottom of the can. Use a power mixer and keep material under constant agitation while mixing.

THINNING

For spray, thin up to 10% or 3/4 pint (380 mL) per gallon with No. 2 Thinner if temperatures are below 80°F (27°C). Thin up to 10% or 3/4 pint (380 mL) per gallon with No. 3 Thinner if temperatures are above 80°F (27°C). For brush or roller, thin up to 10% or 3/4 pint (380 mL) with No. 3 Thinner. **Note:** No. 49 Thinner may be substituted where there are VOC restrictions. **Note:** NSF certification requires thinning with No. 2 Thinner. Use of any other thinner voids ANSI/NSF Std. 61 certification.

POT LIFE

24 hours at 77°F (25°C) and 50% R.H. **Caution: This product cures with moisture acting as a catalyst. Incorporation of moisture or moisture laden air (humidity) during use will shorten pot life.** The use of a solvent blanket (small addition of solvent that sits atop the paint in the can) can help to retard a reaction with moisture in the container but agitation will have to be done by manual means, taking care to not disturb the solvent or incorporate it into the paint. Avoid continual agitation at high RPM. When feasible keep containers of material covered during use.

APPLICATION EQUIPMENT

Note: When intermediate and finish coats are white or light colors, best hiding of this primer can be achieved by spray application; or when roller applied, by using 1/4" synthetic woven nap roller covers.

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA †	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	40-50 psi (2.8-3.4 bar)	10-20 psi (0.7-1.4 bar)

† (with heavy mastic spring) Low temperatures or longer hoses will require additional pressure. Use pressure pot equipped with an agitator and keep pressure pot at same level or higher than the spray gun. Compressed air must be dry.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.017"-0.021" (430-535 microns) Reversible Tip	2400-3000 psi (165-207 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Roller: Use a 1/4" or 3/8" (6.4 mm or 9.5 mm) synthetic woven nap cover.

Brush: Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE

Minimum 35°F (2°C) Maximum 120°F (49°C)
The surface should be dry and at least 5°F (3°C) above the dew point. **Note:** Series 44-710 Accelerator must be used if the surface temperature is below 60°F (16°C) and 30% relative humidity, or if the surface temperature is below 50°F (10°C) regardless of humidity level.

AMBIENT HUMIDITY

Minimum 20% Maximum 90%

CLEANUP

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

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