

PRODUCT PROFILE

<b>GENERIC DESCRIPTION</b>	Waterborne Epoxy
<b>COMMON USAGE</b>	Series 289 is a low ambering, advanced generation, breathable, waterborne epoxy with enhanced UV stability and resistance to yellowing. Series 289 is suitable for both wall and flooring applications and can be applied to green concrete. It has excellent resistance to chemical and solvent exposures and can be used as a primer, topcoat, or standalone sealer.
<b>COLORS</b>	Available in clear and in 16 StrataShield colors, special colors are available. Please contact your Tnemec representative for more information. <b>Note:</b> After mixing and during application, Series 289 will have a milky appearance, which will clear up gradually as the product cures. Once cured, this product will be clear in appearance or will reflect the color of the added pigment. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause amine blush, possibly affecting adhesion of subsequent topcoats.
<b>FINISH</b>	Satin
<b>SPECIAL QUALIFICATIONS</b>	Series 289 meets the requirements of LEED-Low-Emitting Materials, Collaborative for High-Performance Schools-Paints & Coatings, WELL Building Standard-VOC Restrictions, and Living Building Challenge-Healthy Interior Performance. Contact your Tnemec representative for more information.

COATING SYSTEM

<b>SURFACER/FILLER/PATCHER</b>	Series 130, 215, N218, 1254. <b>Note:</b> Series 211-0211 fumed silica can be added to 289 for small patching/surfacing repairs. For more extensive repairs and additional information, contact your Tnemec representative or Tnemec Technical Services.
<b>PRIMERS</b>	<b>Concrete:</b> Self-priming <b>CMU:</b> Self-priming over filled CMU <b>Wall Board, Wood &amp; Drywall:</b> Self-priming, Series 151 <b>Note:</b> The following recoat times apply: Series 151, 2 months.
<b>TOPCOATS</b>	<b>Interior:</b> 289, 247, 248, V290, V291, 296, 297. <b>Important:</b> To maintain a breathable system, Series 289 must be used throughout the entire coating system. An exception can be made when using the thin film topcoats listed.

SURFACE PREPARATION

<b>HORIZONTAL CONCRETE</b>	<p>Prepare surfaces by method suitable for exposure and service.</p> <p>Allow new poured-in-place concrete to cure a minimum of 10 days at 75°F (24°C). Enviro-Pox may be installed on new concrete slab where high rates of moisture vapor transmission would prevent the use of non-breathing flooring systems. Verify concrete dryness in accordance with ASTM F 1869 “Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride” (moisture vapor transmission should not exceed 15 pounds per 1,000 square feet in a 24 hour period), F 2170 “Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes” (relative humidity should not exceed 95%). <b>Note:</b> The testing listed above cannot guarantee avoidance of future moisture related problems particularly with existing concrete slabs. This is especially true if the use of an under-slab moisture vapor barrier cannot be confirmed or concrete contamination from oils, chemical spills, unreacted silicates, chlorides, or Alkali Silica Reaction (ASR) is suspected.</p> <p>Prepare concrete surfaces in accordance with NACE No. 6/SSPC-SP13 Joint Surface Preparation Standards and ICRI Technical Guidelines. Abrasive blast, shot-blast, water jet or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers, and other contaminants and to provide an ICRI-CSP 1-3 surface profile. <b>Note:</b> For best performance when using Series 289 as a primer, the target surface profile is a CSP3. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.</p>
<b>VERTICAL CONCRETE</b>	<p>Allow new concrete to cure for 10 days at 75°F (24°C). Prepare concrete surfaces in accordance with NACE No. 6/SSPC-SP13 Joint Surface Preparation Standards and ICRI Technical Guidelines. Abrasive blast, water jet or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide an ICRI-CSP 1-3 surface profile. <b>Note:</b> For best performance when using Series 289 as a primer, the target surface profile is a CSP3. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.</p>
<b>CMU</b>	<p>When self-priming: Allow new mortar to cure for 10 days. Surfaces must be clean, dry, sound, and free of all contaminants. Level all protrusions and mortar spatter. For pinhole-free surface, use the recommended surfacer/filler/patcher.</p>
<b>WALL BOARD, WOOD &amp; DRYWALL</b>	<p>Must be clean, dry, and free of oil, grease, and other contaminants. Note: When using moisture-resistant and/or high-impact wall board or cement board in wet environments, utilize Series 215 and fiberglass tape or compound suitable for wet environments.</p>
<b>ALL SURFACES</b>	<p>Must be clean, dry and free of oil, grease, curing compounds/sealers, hardeners and other contaminants. Application will tolerate residual dampness from surface preparation process but not puddled water, glistening concrete, or inherently wet concrete.</p>

TECHNICAL DATA

<b>VOLUME SOLIDS</b>	64.0 ± 2.0% (mixed) †
<b>RECOMMENDED DFT</b>	<b>Primer, Intermediate, or Topcoat:</b> 2.0 to 12.0 mils (50-305 microns) per coat. <b>Note:</b> When applied as a clear finish, Series 289 must be applied at a maximum dry film thickness of 5 mils (125 microns) or less to ensure clarity of the product.

# ENVIRO-POX® | SERIES 289

**CURING TIME**

Temperature •	To Topcoat	To Place in Service
75°F (24°C)	7-8 hours (minimum)	12-16 hours

• Based on 50% relative humidity. **Note:** Curing time varies with surface temperature, air movement, humidity, and film thickness. Application in high-humidity conditions may increase curing time.  
**Floor/Horizontal Applications:** If more than 72 hours have elapsed between coats, the coated surface must be mechanically abraded before topcoating. All surfaces must be clean, dry and free of contaminants. Curing time varies with surface temperature, air movement, humidity, and film thickness.  
**Wall/Vertical Applications:** If more than six (6) months have elapsed between coats, the coated surface must be mechanically abraded before topcoating. All surfaces must be clean, dry and free of contaminants. Curing time varies with surface temperature, air movement, humidity, and film thickness.

**VOLATILE ORGANIC COMPOUNDS**

0.08 lbs/gal (9.56 g/L)

**THEORETICAL COVERAGE**

1027 mil sq ft/gal (25.2 m<sup>2</sup>/L at 25 microns). See APPLICATION for coverage rates. †

**NUMBER OF COMPONENTS**

Two: Part A (Amine), Part B (Epoxy)

**MIXING RATIO**

By volume: 3 (Part A) to 1 (Part B)

**PACKAGING**

	Part A	Part B	Yield
Large Kit	3 5-gallon pails	1 5-gallon pail	20 gallons ( 75.7 L)
Small Kit	3.5 gallon pail (partially filled)	1 gallon pail	4 gallons ( 15.1 L)

**NET WEIGHT PER GALLON**

13.75 ± 0.25 lbs (6.24 ± 0.11 kg) (mixed) †

**STORAGE TEMPERATURE**

Minimum 40°F (4°C) Maximum 110°F (43°C)  
 Protect from freezing.

**TEMPERATURE RESISTANCE**

(Dry) Continuous 200°F (93°C) Intermittent 250°F (121°C)

**SHELF LIFE**

**Part A:** 12 months at recommended temperature.  
**Part B:** 12 months at recommended temperature.

**SHELF LIFE**

6 months

**FLASH POINT - SETA**

>210°F (99°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 (m <sup>2</sup> /Gal)
Suggested	4.0 (100)	6.5 (160)	257 (23.8)
Minimum	2.0 (50)	3.0 (80)	513 (47.7)
Maximum	12.0 (305)	19.0 (475)	86 (7.9)
Clear Finish Coat Maximum	5.0 (125)	8.0 (200)	203 (18.9)

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

**MIXING**

Use a power mixer to stir the contents of each container. Add Part B to Part A while mixing. Thoroughly mix the two components for 90 seconds before thinning. Scrape the sides of the container. Thin with water while mixing. Continue mixing until a uniform consistency is achieved. **Important: Both components (Part A and Part B) must be above 55°F (13°C) prior to mixing.** Mixing ratio is three (Part A) to one (Part B) by volume.

**THINNING**

Series 289 may be thinned up to 10% per gallon with clean tap water. When used a primer or sealer direct to concrete, Series 289 **must** be thinned 20% per gallon. For airless spray applications thin 10%.

**POT LIFE**

45 minutes at 75°F (24°C)  
 Material temperatures above 90°F (32°C) will significantly reduce the pot life.

**APPLICATION**

Brush or roller, squeegee, and airless spray.  
**Roller:** Use a 1/4" or 3/8" synthetic woven nap roller cover.  
**Brush:** Use good quality synthetic or nylon bristle brush.  
**Horizontal:** Squeegee and backroll. Brush small areas only.  
**Vertical:** Roll or spray and backroll. Brush small areas only.

**APPLICATION EQUIPMENT**

**Airless Spray**

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.019" (380-485 microns)	2700-3600 psi (186-248 bar)	1/4" (6.4 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions. **Note:** Spraying should only be considered as means to transfer the material to the surface and should be followed by backrolling.

**SURFACE TEMPERATURE**

Minimum 50°F (10°C) Maximum 110°F (43°C)  
 The surface should be at least 5°F (3°C) above the dew point.

**MATERIAL TEMPERATURE**

Minimum 55°F (13°C), Maximum 110°F (43°C). The surface should be at least 5°F (3°C) above the dew point.

**CLEANUP**

Flush and clean all equipment immediately after use with soap and warm water.

† Values may vary with color.

## ENVIRO-POX® | SERIES 289

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