



**ESGARD**

## **PERMAGARD 203 All SEASON EPOXY (Formerly UltraGard 203)**

<b>DESCRIPTION</b>	<p>PermaGard 203 All Season Epoxy is an rust inhibitive epoxy formulated to pass the requirements and qualify for Mil-PRF-23236 (B). This QPL approved product is a two component, low V.O.C., self-priming epoxy coating that exhibits excellent penetration and adhesion to rusted metal, aged galvanized and most existing paint systems. Incorporating a unique and effective thixotrope, PermaGard 203 exhibits excellent film build, specifically on edges as well as vertical surfaces. It may also be applied over damp surfaces when all excess moisture is removed prior to application. Product advantages include:</p> <ol style="list-style-type: none"><li>1. Excellent film build on edges and vertical surfaces</li><li>2. User friendly</li><li>3. Rust inhibitive</li><li>4. Lead and chromate free</li><li>5. Excellent recoating properties</li><li>6. Tolerates surface moisture during application</li><li>7. Excellent adhesion - typically 1000 lb/in<sup>2</sup> plus</li><li>8. Long term flexibility</li><li>9. Low temperature cure</li></ol>
<b>FIELD OF APPLICATION</b>	<p>PermaGard 203 is qualified and approved product to Mil-PRF-23236 (B). Used as a primer, intermediate, and finish coat in heavy duty industrial or marine environments (ballast tanks, voids, and bilges) as well as contact to aviation fuels as per Mil-PRF-23236 (B). Product applications include:</p> <ol style="list-style-type: none"><li>1. Ballast tanks</li><li>2. Fuel tanks</li><li>3. Bilges</li></ol>
<b>SERVICE CONDITIONS</b>	<p><b>DO NOT USE FOR POTABLE WATER</b></p> <p>PermaGard 203 will withstand continuous dry heat of 250°F (121°C) and intermittent dry heat to 300°F (149°C). For immersion in fresh or salt water, the continuous temperature should not exceed 200°F (93°C).</p>

### **TECHNICAL DATA**

<b>TYPE</b>	Rust-inhibitive modified epoxy
<b>VOLUME SOLIDS</b>	75%
<b>V.O.C.</b>	Unthinned: 1.87 lb/gal (224 g/l) Thinned 10%: 2.36 lb/gal (283 g/l)
<b>DENSITY</b>	12.2 lb/gal mixed (1.46kg/l)

*Manufacturers of Quality Paints and Protective Coatings*  
Esgard, Inc. 515 Debonnaire Road Scott, Louisiana 70583 U.S.A.  
(337)234-6327 Fax (337) 234-0113 1-800-888-2511

[www.esgard.com](http://www.esgard.com)



**COVERAGE  
(theoretical)**

1203 sq ft/gal at 1 mil dry (1.3 mils wet)  
 29.5 sq m/l at 25 microns dry (33 microns wet)

241 sq ft/gal at 5 mils dry (6.7 mils wet)  
 5.9 sq m/l at 125 microns dry (167 microns wet)

NOTE: When figuring practical coverage, allow for application losses, surface irregularities, any solvent addition, etc.

**RECOMMENDED  
DRY FILM  
THICKNESS PER  
COAT**

Minimum: 4.0 mils (100 microns)  
 Typical: 5.0 mils (125 microns)  
 Maximum: 10.0 mils (250 microns)

**DRY TIME (HOURS)  
@ 5 MILS DFT  
65% R.H**

	<u>Set To Touch</u>	<u>To Handle</u>	<u>Recoat W/203</u>	<u>Topcoat W/310*</u>	<u>Immersion Service (Final Cure)</u>
20°F (-7°C)	22	30	30	30	28 Days
40°F ( 4°C)	10	24	24	24	21 Days
60°F (16°C)	6	14	12	12	14 Days
70°F (21°C)	4	8	6	6	10 Days
80°F (27°C)	3	6	4	4	7 Days
100°F (38°C)	2	4	2	2	5 Days

\* Typical topcoat is UltraGard 310 Hi-Sol Acrylic Urethane.

**SURFACE  
PREPARATION**

Thoroughly clean any oil or grease contaminated areas with Esgard Surface Conditioner or a detergent wash followed by a fresh water rinse and allow drying in accordance with SSPC-SP1-82.

STEEL OR AGED GALVANIZING

NON-IMMERISION SERVICE -Remove all loose paint, dirt, rust and other surface contaminants via the most economical method:

Manual: SSPC-SP2-82 hand tool or SSPC-SP3-82 power tool surface or better.

Abrasive Blast: SSPC-SP7-82 brush off blast to SSPC-SP6-82 commercial blast or better.

IMMERSION (WATER) SERVICE - Abrasive blast to SSPC-SP10-82 near white metal surface or better with an anchor profile of 2.0 - 3.0 mils (50 -75 microns).

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Existing Coatings - Compatible with most tightly adhering existing coatings when properly prepared. However, a test patch is always recommended to test compatibility.

Damp Surfaces - Immediately prior to application, remove excess moisture with clean, dry rags or blow down with clean, dry compressed air. Apply liberal quantities by brushing vigorously to displace moisture or spray to recommended wet film thickness. Multiple coats are recommended.

## APPLICATION

Mix - Power mix components separately, then mix 1:1 by volume A:B. Mix complete Part A with complete Part B. Do not use partial kits. Allow to stand for 15 minutes to thoroughly mix and ingest. In cold weather the applied film will cure faster if the temperature is above 60°F (15°C) at the time of mixing.

Thin - Thin only as needed up to 10% (typically 5%) by volume to obtain proper consistency. For all spraying, brushing, and rolling use the following:

Above 80°F (27°C)	Esgard Thinner 106
Below 80°F (27°C)	Esgard Thinner 103

NOTE: The use of non-specified thinners may affect application characteristics and product performance.

Spray - Use suitable conventional or airless spray equipment. Flush equipment with Thinner 106 before use. The following has been found adequate:

Conventional - Pressure pot should have an oil/water trap, double regulators, and minimum 3/8" I.D. fluid and air hose. Gun should be a DeVilbiss with a (D) tip and # 64 air cap, or Binks with # 66 or # 68 set up.

Airless - Use Graco Bulldog 30:1 or equal with Teflon packing with minimum 3/8" I.D. fluid hose. Gun should have a fluid tip size .419 - .423. Fluid tip pressure should be 2300 - 2600 p.s.i.

Brush - Apply PermaGard 203 All Season Epoxy with a clean pure china bristle paint brush.

Roll - Apply PermaGard 203 All Season Epoxy with a quality short to medium nap roller with phenolic core. A solvent resistant foam roller provides an excellent finish.

## POT LIFE (As Supplied)

TEMPERATURE	HOURS
20°F (-7°C)	24
40°F (5°C)	12
60°F (16°C)	8
80°F (27°C)	6
100°F (38°C)	3
125°F (52°C)	1.5

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Pot life ends when viscosity changes and spraying and film build characteristics are impaired.

**CLEAN UP**

Esgard Thinner 103 or 106. For personal cleanup, use soap and water.

**APPLICATION/  
SERVICE  
LIMITATIONS**

Temperature and Humidity:

	<u>MIN</u>	<u>MAX</u>
Application (Ambient)	20°F (-7°C)	110°F (43°C)
Application (Material)	20°F (-7°C)	110°F (43°C)
Surface	20°F (-7°C)	145°F (63°C)
Humidity	0%	97%
Service		
	<u>Non-Immersion Dry</u>	
	Continuous	250°F (121°C)
	Intermittent	300°F (149°C)
	<u>Immersion</u>	
	Continuous	150°F (66°C)
Storage	45°F (7°C)	110°F (43°C)

NOTE: The applied film will cure faster if the temperature of each component is above 60°F (15°C) at time of mixing.

**ORDERING  
INFORMATION**

CONTACT # 1-800-888-2511

SHIPPING WEIGHT

	<u>2 GAL KIT</u>	<u>10 GAL KIT</u>
PermaGard 203	26.5 lb (12.0 kg)	132.0 lb (60.0 kg)

SHIPPING WEIGHT

	<u>1 GAL</u>	<u>5 GAL</u>
Thinner 103	8.5 lb (3.9 kg)	42.0 lb (19.0 kg)
Thinner 106	8.5 lb (3.9 kg)	42.0 lb (19.0 kg)

FLASH POINT

PermaGard 203 – Part A	95°F (35°C)
PermaGard 203 – Part B	95°F (35°C)
Thinner 103	45°F ( 7°C)
Thinner 106	105°F (41°C)

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<b>COLORS</b>	Primer Red (203 – R – 001) Buff (203 – L – 001) Gray (203 – H – 001) Black (203 – B – 001) Other colors available upon request.
<b>SHELF LIFE</b>	Eighteen (18) months from date of shipment.
<b>CAUTION</b>	<b>FOR INDUSTRIAL USE ONLY! FLAMMABLE!</b> Contains petroleum distillates. <b>DO NOT USE NEAR HEAT, SPARKS, OR FLAMES.</b> Close container after use.
<b>SAFETY</b>	Refer to Material Safety Data Sheet supplied with each order.
<b>FIRST AID</b>	Refer to Material Safety Data Sheet supplied with each order.