



ESGARD

PERMAGARD 200 EPOXY KOTE

DESCRIPTION

PermaGard 200 is a high solids/low V.O.C. epoxy coating. It is a self-priming high build coating that combines excellent wetting, penetration, and adhesion along with maximum abrasion resistance. Ease of application using either conventional or airless spray equipment separates this product from other products used in heavy duty offshore splash zone applications. It is typically applied in two coats as a primer and finish coat. And, it is available in high temperature versions (PermaGard 200 HT) for applications where ambient and surface temperatures typically exceed 90°F (32°C).* Product advantages include:

- | | |
|---------------------------|---|
| 1. User friendly | 6. Hard, tough film |
| 2. Rust inhibitive | 7. Long term flexibility |
| 3. Low V.O.C. | 8. Excellent film build on edges, welds, etc. |
| 4. Lead and chromate free | 9. Excellent wetting in pitted areas |
| 5. 1:1 mixing ratio | 10. Excellent recoating properties |

* Under cooler conditions, if using PermaGard 200 HT thin as needed to achieve desired spray characteristics.

FIELD OF APPLICATION

PermaGard 200 was originally designed as a premium coating for immersion service and structural steel in an offshore environment. Throughout the years, it has been tested and proven unique and effective splash zone coating. Product applications include:

- | | |
|------------------------------|---------------------------------------|
| 1. Boat bumpers and landings | 4. Drilling rig hulls |
| 2. Platform jacket sections | 5. Drill casings, risers, sumps, etc. |
| 3. Jack-up legs and mats | 6. Other splash zone applications |

SERVICE CONDITIONS

PermaGard 200 will withstand continuous dry heat of 200°F (93°C) and intermittent dry heat to 250°F (121°C). The color may change as these limits are approached, but the film will remain intact. For immersion in fresh or salt water, the continuous temperatures should not exceed 150°F (66°C). Do not use for potable water. For further information, see application/service limitations. PermaGard 200 exhibits broad resistance to aggressive chemicals and severe marine environments. Typical chemical resistance is as follows:

<u>Exposure</u>	<u>Immersion</u>	<u>Splash & Spill</u>	<u>Fumes</u>
Acids	Good	Very Good	Excellent
Alkalies	Good	Very Good	Excellent
Solvents	Very Good	Excellent	Excellent
Salt Water	Excellent	Excellent	Excellent
Water	Excellent	Excellent	Excellent

Manufacturers of Quality Paints and Protective Coatings
Esgard, Inc. 515 Debonnaire Road Scott, Louisiana 70583 U.S.A.
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www.esgard.com



TECHNICAL DATA

TYPE	Rust-inhibitive modified epoxy			
VOLUME SOLIDS	78%			
V.O.C.	As Supplied: 2.0 lb/gal (240 g/l) Thinned 10%: 2.48 lb/gal (298 g/l)			
DENSITY	12.0 lbs/gal mixed (1.3 kg/l)			
COVERAGE (Theoretical)	1251 sq ft/gal at 1 mil dry (1.3 mils wet) 33.6 sq m/l at 25 microns dry (32 microns wet)			
	105 sq ft/gal at 12 mils dry (15.5 mils wet) 2.8 sq m/l at 300 microns dry (385 microns wet)			
RECOMMENDED DRY FILM THICKNESS	Minimum:	10.0 mils	(250 microns)	
	Typical:	12.0 - 14.0 mils	(300 -350 microns)	
	Maximum:	20.0 mils	(500 microns)	
DRY TIME (HOURS) @ 5 MILS DFT 65% R.H.		<u>50°F (10°C)</u>	<u>77°F (25°C)</u>	<u>90°F (32°C)</u>
	Set-to-touch	22	4	3
	Dry hard (thoroughly)	30	18	14
	Recoat	24	6	4
	Overcoat *	30	8	6
Immersion Service	21 Days	7 Days	7 Days	

* If a high gloss finish is desired, use PermaGard 310 Hi-Sol Acrylic Urethane in desired color.

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.

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.
- UHP: SSPC-SP12 WJ-3/L or better.

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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) or UHP to SSPC-SP12 WJ-3/L or better.

APPLICATION

Mix - **No induction time is required. Mix ONLY when ready to apply.** 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.

Thin -Thin only as needed up to 10% (typically 5%) by volume to obtain a 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 equipment. Flush equipment with Thinner 103 prior to use. The following has been found adequate:

Conventional - Pressure pot should have an oil/water trap, double regulators, and a 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 #68 set up.

Airless - Use Graco Bulldog 30:1 or equal with Teflon packing and minimum 3/8" I.D. fluid hose. Gun should have a tip size of .019" - .025". Fluid tip pressure should be 1300 - 2600 p.s.i.

Brush - Apply PermaGard 200 with a clean pure china bristle paint brush.

Roll - Apply PermaGard 200 with a quality short to medium nap roller with phenolic core. A solvent resistant foam roller provides an excellent finish.

POT LIFE
(As Supplied)

<u>Temperature</u>	<u>HOURS</u>	
	<u>Typical Film Thickness</u> (PermaGard 200)	<u>Maximum Film Thickness</u> (PermaGard 200 HT)
77°F (25°C)	3	2
90°F (32°C)	2	1.5
100°F (38°C)	1.5	1

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.

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**APPLICATION/
SERVICE
LIMITATIONS
(TYPICAL)**

Temperature and Humidity:			
		<u>MIN</u>	<u>MAX</u>
Application (Ambient)		45°F (7°C)	110°F (43°C)
Application (Material)		45°F (7°C)	110°F (43°C)
Surface		45°F (7°C)	145°F (63°C)
Humidity		0%	97%
Service			
	<u>Non-Immersion Dry</u>		
	Continuous	–	200°F (93°C)
	Intermittent	–	250°F (121°C)
	<u>Immersion</u>		
	Continuous	–	150°F (66°C)
Storage		45°F (7°C)	110°F (43°C)

This product simply requires application when the surface temperature is above the dew point. Condensation resulting from substrate temperatures below the dew point may cause flash rusting on prepared surfaces and interfere with adhesion. Special application techniques may be necessary above and/or below typical application conditions. **Note: Where ambient and surface temperature exceed 90°F (32°C), specify PermaGard 200 HT.**

**ORDERING
INFORMATION**

CONTACT #	1-800-888-2511		
SHIPPING WEIGHT		<u>2 GAL KIT</u>	<u>10 GAL KIT</u>
	PermaGard 200	28.0 lb (12.7 kg)	136.0 lb (61.8 kg)
		<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 200 – Part A	95°F (35°C)
	PermaGard 200 – Part B	95°F (35°C)
	Thinner 103	45°F (7°C)
	Thinner 106	105°F (41°C)

COLORS Standard colors available. Custom colors on request.

SHELF LIFE Thirty – six (36) months from date of shipment.

CAUTION **FOR INDUSTRIAL USE ONLY! FLAMMABLE!** Contains petroleum distillates. **DO NOT USE NEAR HEAT, SPARKS, OR FLAMES.** Close container after use.

SAFETY/FIRST AID Refer to Material Safety Data Sheet supplied with each order.

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