



**ESGARD**

**ULTRAGARD 305  
ACRYLIC ALIPHATICURETHANE  
(FORMERLY PERMAGARD 305)**

<b>DESCRIPTION</b>	<p>A premium quality high gloss acrylic aliphatic urethane, UltraGard 305 is a two component finish coat formulated for brush and roll application. UltraGard 305 yields a hard, smooth surface for industrial and marine environments. UltraGard 305 also exhibits excellent low temperature curing properties making it an excellent choice for winter painting. Product advantages include:</p> <ol style="list-style-type: none"><li>1. High Gloss Finish</li><li>2. Low temperature cure</li><li>3. Excellent color and gloss retention</li><li>4. Excellent film durability</li><li>5. Excellent resistance to chipping and scratching</li><li>6. Wide color selection</li><li>7. Lead and chromate free colors available</li></ol>																		
<b>FIELD OF APPLICATION</b>	<p>UltraGard 305 is used as a finish coat over properly primed surfaces in industrial and marine environments where long term chemical resistance, gloss, and color retention are required. Product applications include:</p> <ol style="list-style-type: none"><li>1. Offshore structures</li><li>2. Ships, Barges, other marine vessels</li><li>3. Storage Tanks</li><li>4. Pipelines</li><li>5. Refineries and petrochemical plants</li><li>6. Heavy equipment.</li><li>7. Industrial machinery</li><li>8. Pulp and Paper Mills</li></ol>																		
<b>SERVICE CONDITIONS</b>	<p>UltraGard 305 is used as a finish coat over properly primed surfaces in industrial and marine environments where long term chemical resistance, gloss, and color retention are required. Product applications include:</p> <table><thead><tr><th><u>Exposure</u></th><th><u>Splash &amp; Spill</u></th><th><u>Fumes</u></th></tr></thead><tbody><tr><td>Acids</td><td>Very Good</td><td>Excellent</td></tr><tr><td>Alkalies</td><td>Very Good</td><td>Excellent</td></tr><tr><td>Solvents</td><td>Excellent</td><td>Excellent</td></tr><tr><td>Salt Water</td><td>Excellent</td><td>Excellent</td></tr><tr><td>Water</td><td>Excellent</td><td>Excellent</td></tr></tbody></table>	<u>Exposure</u>	<u>Splash &amp; Spill</u>	<u>Fumes</u>	Acids	Very Good	Excellent	Alkalies	Very Good	Excellent	Solvents	Excellent	Excellent	Salt Water	Excellent	Excellent	Water	Excellent	Excellent
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**TECHNICAL DATA**

TYPE	Acrylic-aliphatic urethane		
VOLUME SOLIDS	42% Varies slightly with color.		
V.O.C.	As Supplied:	4.30 lb/gal (517 g/l)	Varies slightly with color.
	Thinned 10%:	4.60 lb/gal (548 g/l)	Varies slightly with color.
DENSITY	9.8 lbs/gal (1.18 kg/l) – Varies with color.		

*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

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**COVERAGE  
(Theoretical)**

673 sq ft/gal at 1 mil dry (2.4 mils wet)  
16.5 sq m/l at 25 microns dry (60 microns wet)

336 sq ft/gal at 2 mils dry (4.8 mils wet)  
8.3 sq m/l at 50 microns dry (120 microns wet)

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

**RECOMMENDED  
DRY FILM  
THICKNESS PER  
COAT**

1.5 - 2.0 mils (38 - 50 microns) Lighter colors may require more dry film thickness or two coats to achieve optimum hide

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

	<u>Set To Touch</u>	<u>To Handle</u>	<u>Recoat W / 305</u>	<u>Final Cure</u>
40°F (5°C)	3	12	10	12 Days
50°F (10°C)	2	9	7	9 Days
60°F (16°C)	1	6	5	7 Days
80°F (27°C)	1/2	3	3	4 Days
100°F (38°C)	1/4	2	2	2 Days

**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.

**SUBSTRATES**

Apply over clean, dry properly primed or prepared ferrous and galvanized metal, aluminum, and masonry surfaces. For application over aged painted surfaces, dull all glossy areas by sanding or other methods. A test patch is always recommended to test compatibility and adhesion over aged painted surfaces.

**APPLICATION**

Mix – Power mix components separately, then mix 4:1 by volume A:B. Mix all of Part A with all of Part B. Since this product is sensitive to moisture, do not use partial kits. Allow to stand for 15 minutes to thoroughly mix and ingest.

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 103 or 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

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DeVilbiss with an E tip and # 78 air cap, or Binks with a # 66 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 .013 - .017. Fluid tip pressure should be 1300 - 2600 psi.

Brush – Apply UltraGard 305 with a quality paint brush.

Roll – Apply UltraGard 305 with a quality short nap roller with woven pile and phenolic core. A solvent resistant foam roller provides an excellent finish.

Note: Two coats may be necessary to obtain proper film thickness because brushing and rolling tend to push material thinner than required.

<u>POT LIFE</u>	<u>TEMPERATURE</u>	<u>HOURS</u>
	80°F (27°C)	6
	90°F (32°C)	3
	100°F (38°C)	2

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.

<b>APPLICATION / SERVICE LIMITATIONS (TYPICAL)</b>	Temperature and Humidity:	
	<u>MIN</u>	<u>MAX</u>
Application (Ambient)	45°F ( 7°C)	110°F (43°C)
Application (Material)	50°F (10°C)	110°F (43°C)
Surface	45°F ( 7°C)	145°F (63°C)
Humidity	0%	90%
Service		
<u>Non-Immersion Dry</u>		
Continuous	–	200°F ( 93°C)
Intermittent	–	250°F (121°C)
Storage	45°F (7°C)	100°F (38°C)

**DO NOT APPLY** when the surface temperature is less than 5°F (3°C) above the dew point. In addition, ambient conditions must remain above the dew point for a minimum of 3 hours following the application of UltraGard 305 Acrylic Aliphatic Urethane to prevent water spots or loss of gloss.

**ORDERING INFORMATION**

CONTACT # 1-800-888-2511

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SHIPPING WEIGHT		<u>1 GAL KIT</u>	<u>5 GAL KIT</u>
	UltraGard 305	12.0 lb (5.5 kg)	57.0 lb (26.00 kg)
		<u>1 GAL</u>	<u>5 GAL</u>
	Thinner 103	8.5 lb (3.9 kg)	42.0 lb (19.00 kg)
	Thinner 106	8.5 lb (3.9 kg)	42.0 lb (19.00 kg)
FLASH POINT	UltraGard 305 – Part A		80°F (27°C)
	UltraGard 305 – Part B		105°F (41°C)
	Thinner 103		45°F ( 7°C)
	Thinner 106		105°F (41°C)
COLORS	Wide color selection. Custom colors on request.		
SHELF LIFE	Thirty – six (36) months Part A; Twenty – four (24) months Part B from date of shipment. <b>KEEP AWAY FROM MOISTURE.</b>		
CAUTION	<b>FOR INDUSTRIAL USE ONLY! FLAMMABLE!</b> Contains petroleum distillates. <b>DO NOT USE NEAR HEAT, SPARKS, OR FLAMES.</b> Close container after use.		
SAFETY/FIRST AID	Refer to Material Safety Data Sheet supplied with each order.		

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