



RAPTOR EPOXY PRIMER



DRIVING SURFACE PERFECTION™

TECHNICAL DATA SHEET

Version 3.0

RAPTOR 4:1 ANTI-CORROSIVE EPOXY PRIMER

DESCRIPTION

RAPTOR Anti-Corrosive Epoxy Primer is a 2K high performance primer specifically designed to be used under RAPTOR Protective Coating to further extend the protective and anti-corrosive properties of RAPTOR. The advanced resin technology in RAPTOR Anti-Corrosive Epoxy Primer improves adhesion to bare metal and most other prepared surfaces, and promotes intercoat performance to further extend the life of RAPTOR protective coating. It contains a blend of anti-corrosive additives to inhibit rust and corrosion and offers outstanding salt spray resistance.

- Suitable as a primer or as a primer filler for industrial refinish applications, the primer also provides excellent anti-rust protection.

PROPERTIES

- Easy to apply
- Excellent anti-corrosion resistance
- Can be applied directly over surface rust
- Can be applied wet on wet
- Smooth or easy sanding
- Excellent topcoat gloss holdout
- Wet-on-wet process with a long open time for topcoat application
- Chromate and lead free
- Salt spray resistance test completed at >2,500 hours according to ASTM B117 at an independent laboratory
- Excellent opacity and coverage

Available colors Gray

TECHNICAL DATA



Substrates

- Aluminum
- Galvanized
- Mild Steel
- SMC
- E-coat
- Polyester Fillers

RAPTOR 4:1 Anti-Corrosive Epoxy Primer must not be applied directly over Etch/Wash Primer.

	Base	Mixed
Viscosity		25 - 30 s/ DIN 4
Solid content	60.00%	44.00%
Specific gravity g/cm ³	1.35	1.27



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APPLICATION GUIDE

Hardener Selection

RAPTOR 4:1 Anti-Corrosive Epoxy Primer is only compatible with the included RAPTOR 4:1 Anti-Corrosive Epoxy Primer Hardener



Substrate Preparation

For best results, good preparation is essential: Clean and degrease removing dirt, oil, grease and wax with a cleaning solution, like U-POL SYSTEM 20 Solvent Based Degreaser (UP2012, UP2022) or Water Based Degreaser (UP2002). Remove all loose material including rust and oxidation as per the recommendations below.

RAPTOR 4:1 Anti-Corrosive Epoxy Primer can be applied directly to properly prepared rust without a requirement for chemical preparation. The lifetime of the coating in severe conditions is enhanced by more rigorous surface preparation.

For light corrosion, mechanical hand preparation or mechanical power tool preparation (i.e. SSPC-SP3 (SSI-St3)) is sufficient to prepare the surface. Loose and flaky material should be removed before applying.

For heavily oxidized/rusted metals, severe exposure conditions or warranty work, the surface should be sandblasted to Near White sand blasting standard (SSPC-SP10 (SSI-SA2.5)) (up to 15% stains/shadows).

ISO 8501-1	SSPC	NACE
Sa 2.5	SP10	No. 2

	Bare Steel/ Mild Steel	Aluminum/ Galvanized	Wood/ Plywood	Body Filler	GRP, SMC, Fiberglass
	UP2012, UP2022	UP2012, UP2022	UP2012, UP2022		UP2002
	P80	P180	Dry Sand P180-220	Dry Sand P180-220	Dry Sand P180-220

Please note: RAPTOR 4:1 Anti-Corrosive Epoxy Primer must not be applied directly over Etch/Wash Primer.

For more details on surface preparation of corroded surfaces, visit www.nace.org.

Reclean after sanding with a cleaning solution like U-POL SYSTEM 20 Degreaser (UP2002) and dry thoroughly.



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Mixing Ratio

RAPTOR Epoxy Primer : Epoxy Primer Hardener 4:1 by volume

Standard Application

Mixing by Weight

Final Volume		Weight of Primer		Weight of Hardener	
250 ml	8 FL OZ	270.0 g	9.5 OZ	47.5 g	1.7 OZ
500 ml	17 FL OZ	540.0 g	19.0 OZ	95.0 g	3.3 OZ
750 ml	25 FL OZ	810.0 g	28.6 OZ	142.5 g	5.0 OZ
1000 ml	34 FL OZ	1080.0 g	38.1 OZ	190.0 g	6.7 OZ
1250 ml	42 FL OZ	1350.0 g	47.6 OZ	237.5 g	8.4 OZ



Viscosity DIN 4 / sec

25 - 30

Working Pot-Life @ 70°F

2 hours

Note that although the activated product stays liquid for much longer than the effective pot life stated, using the activated product past the effective life will give unsatisfactory results



Compliant HVLP Gravity Gun

Gun tip size 1.4 - 1.8mm

Air Pressure at the gun Follow gun manufacture's recommended guidelines

Conventional Spray Gun

Gun tip size 1.6 - 1.9 mm

Air Pressure at the gun 50 - 65 PSI



Coats

2 - 3 coats

Build / microns

Dry Film Thickness: Approx. 3 MIL depending on application

Wet Film Thickness: Approx. 5.5 MIL depending on application

Theoretical coverage: 1L covers approximately 60 sq feet at 3 MIL



Flash-off @ 70°F

Between coats 10 mins



Drying Times

Touch dry @ 68°F 2 hours

Sandable @ 68°F 8 hours

Sandable @ 140°F 30 mins

Sandable @ 125°F 45 mins

RAPTOR Topcoat time 60 minutes - 7 days

Other topcoats 90 minutes



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Roller Application

Flash-off @ 70°F between coats	5 -10 minutes
Dry Film Thickness:	About 1 MIL depending on application
Wet Film Thickness:	About 1.75 MIL depending on application



Sanding

Method	Initial	Final
Wet Sanding by hand	P500 - P600	P800 - P1000
Wet Sanding by machine	P500 - P600	P800 - P1000
Dry Sanding by hand	P220 - P360	P400 - P500
Dry Sanding by machine	P280 - P360	P400 - P500



Over Painting

Wet - on - wet
@ 68°F air dry

60 minutes after the final coat and up to 7 days later, RAPTOR 4:1 Anti-Corrosive Epoxy Primer can be directly overcoated with RAPTOR Bed Liner and Protective coating without sanding. For other 2K polyurethanes, allow 90 minute minimum dry time prior to top coating. Sanding necessary after 7 days as per the table above.

Dry - on -dry
@ 68°F air dry

After 8 hours, can be overcoated with U-POL body fillers. Only 1 coat required for body fillers.

RAPTOR 4:1 Anti-Corrosive Epoxy Primer is not recommended for use with water based paint systems

STORAGE & VOC INFORMATION



Shelf Life

18 months from date of manufacture in sealed original containers.

Recommended Storage Temperature 40°F - 75°F

Equipment Cleaning Clean gun Immediately after use with SYSTEM 20 reducer or gunwash.

Important Remarks

Do not use activated product beyond pot life.

Activated material should not be returned to the original can of non-activated material.

After 10 minutes standing, the paint may need mild agitation to reliquify before 2nd coat

Do not apply when ambient temperature falls below 50°F or relative humidity exceeds 90%

Apply only one coat of Epoxy Primer if a Polyester Filler or Polyester Spray Filler is to be applied over the Epoxy Primer



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VOC Information



Order Code	Format	Color	As Packaged VOC:		As Applied VOC:
			Primer VOC:	Hardener VOC:	
UP4830	5L Kit	Gray	3.85 lb/gal (461 g/l)	5.43 lb/gal (651 g/l)	4.16 lb/gal (499 g/l)
UP4831	1L Kit	Gray	3.85 lb/gal (461 g/l)	5.43 lb/gal (651 g/l)	4.16 lb/gal (499 g/l)

IMPORTANT: FOR PROFESSIONAL USE ONLY. Read full instructions before use.

This product contains hazardous materials and therefore appropriate personal protective equipment should always be used. Please refer to the label and consult the safety data sheet for full handling instructions and personal protection information. U-POL disclaims any liability where the user does not wear the recommended personal protective equipment. The above data is for information only and may change without prior notice. It is the Buyers responsibility to ensure the suitability of the products for their own use and check the information is up to date. The recommendation of use of our products and application in our technical data sheets are based on our knowledge and experience. These data sheets are available via your local distributor or via the U-POL website at WWW.U-POL.COM. U-POL is not responsible for the results obtained by others over whose methods we have no control and thereof U-POL is not liable for consequential or incidental damages including loss of profits.

U-POL US, Inc.

108 Commerce Way
 Stockertown, PA 18083
 WWW.U-POL.COM

US Sales

T: (610) 746 7081
 F: (610) 743 8654
 sales-us@u-pol.com

Rest of the World Sales

T: +44 (0)20 8492 5900
 F: +44 (0)20 8150 5605
 sales@u-pol.com

Technical

T: +44 (0)1933 230 310
 F: +44 (0)1933 425 797
 technicaldepartment@u-pol.com

EMERGENCY TELEPHONE:1-800-424-9300