



New Guard Coatings Group

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This information is not exhaustive and it is the user's responsibility to ensure that this data sheet is the most current by contacting their local New Guard Coatings Group branch prior to using the coating/product.

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Protective & Marine Coatings
PRODUCT DATA SHEET



MACROPOXY® 400
EPOXY ZINC PHOSPHATE

Revised: March 10, 2020

PRODUCT DESCRIPTION

MACROPOXY 400 is a multi-functional epoxy zinc phosphate coating for the protection of carbon steel.

INTENDED USES

- Suitable for the protection of structural steel in a wide range of environments including marine, heavy industrial, and C1 to C5 as defined in ISO12944
- Primer for structural steel on blast cleaned steel for internal and external environments
- May be used as a high build intermediate coat as well as the final coat where a low sheen industrial and functional finish is required

PRODUCT DATA

Finish:	Flat	
Colors:	Light Gray, Dark Gray, Black, Red Oxide, and White	
Volume Solids:	70% ± 3%, mixed	
VOC (EPA Method 24):	<340 g/L; 2.8 lb/gal, mixed	
Mix Ratio:	7:1 by volume	
Typical Thickness:		
	Recommended Spreading Rate per coat:	
	Minimum	Maximum
Wet mils (microns)	5.0 (125)	12.0 (300)
Dry mils (microns)	3.5 (88)	8.4 (210)
~Coverage sq ft/gal (m²/L)	133 (3.3)	320 (7.9)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	1122 (27.5)	
	<i>NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.</i>	
Shelf Life:	24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).	
Flash Point:	Part A: 75°F (24°C) Part B: 78°F (26°C)	
Reducer / Clean Up:	Xylene	
Weight:	13.1 ± 0.2 lb/gal ; 1.57 Kg/L, mixed	

Average Drying Times:	20°F (-7°C)	50°F (10°C)	77°F (25°C)	100°F (38°C)
Touch:	3 hours	1.5 hours	1 hour	45 minutes
Handle:	30 hours	15 hours	7 hours	4 hours
Recoat:				
minimum:	8 hours	5 hours	3.5 hours	2 hours
maximum:			7 days	
Sweat-in-time:	none required			
Pot Life:	not recommended*	2.5 hours	1.5 hours	1 hour

*It is recommended that the product is kept above 50°F (10°C) for application and mixing.
Pot life is dependent upon temperature and mass.
If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Minimum recommended surface preparation:

- Iron & Steel: Atmospheric: SSPC-SP6/NACE 3, 2-3 mil (50-75 micron) profile
- Stainless & Galvanized Steel: Atmospheric: SSPC-SP16, 1 mil (25 micron) profile



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<p>Airless Spray Pressure.....2200 psi minimum (151 bar) Tip013" (0.33 mm) Reduction.....As needed, up to 5% by volume</p> <p>Conventional Spray Atomization Pressure.....40 psi (2.7 bar) Fluid Pressure.....5 psi (0.3 bar) Reduction.....As needed, up to 5% by volume</p> <p>Brush* Brush.....Natural Bristle Reduction.....As needed, up to 5% by volume Note: Required film thickness may not be achieved in one coat</p> <p>Roller* Cover3/8" woven with solvent resistant core Reduction.....As needed, up to 5% by volume</p> <p><i>*Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.</i></p> <p>If specific application equipment is not listed above, equivalent equipment may be substituted.</p>	<p>Temperature: Air & Surface: 20°F (-7°C) minimum, 120°F (49°C) maximum Material: 50°F (10°C) minimum, 95°F (35°C) maximum At least 5°F (2.8°C) above dew point</p> <p>Relative humidity: 90% maximum</p>																																																																					
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	<ul style="list-style-type: none"> • BS476 Part 7 - Surface Spread of Flame • BS6853 Appendix D - Smoke Emissions - For details of substrate/scheme, consult Sherwin Williams. 																																																																					
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<p>The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.</p>	<p>Refer to the SDS sheet before use. Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.</p>																																																																					
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