Protective & Marine Coatings

CARCLAD® MACROPOXY HS

PART A B58-Y411 **SERIES**
PART B B58VY411 **CATALYST**

Revised: August 11, 2020

PRODUCT INFORMATION

PRODUCT DESCRIPTION

CARCLAD MACROPOXY HS is an epoxy mastic designed for application to properly prepared steel surfaces. It may be used as a one or two coat, direct-to-metal protective coating, or over a Macropoxy primer. It can be applied to marginally prepared surfaces.

- High build for good coverage on rough corners and edges
- Long term durability
- Corrosion resistant
- Resistant to many solvents and chemicals

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss, 50+ units @ 60 degrees
Color:	Black, Gray, White, and Boxcar Red
Volume Solids:	80% +/- 2% mixed, may vary by color
VOC (EPA Method 24):	
Unreduced:	241 g/l; 2.0 lb/gal
Reduced (10%):	Oxsol 100 Exempt Solvent
Reduced (10%):	MEK: 290 g/l; 2.42 lb/gal
Reduced (10%):	Reducer #54: 268 g/l; 2.24 lb/gal
HAPS:	
Unreduced:	0.91 lbs HAPS / gal Coating Solids
Reduced:	0.91 lbs HAPS / gal Coating Solids (Oxsol 100)
Reduced:	1.32 lbs HAPS / gal Coating Solids (MEK)
Reduced:	1.57 lbs HAPS / gal Coating Solids (Reducer #54)
Mix Ratio:	1:1 by volume

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils:	**5.0**	**8.0**
Dry mils:	**4.0**	**6.0**

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 6.0 mils wet @ 50% RH:

	@ 50°F	@ 77°F	@ 100°F
To touch:	7 hours	4 hours	2-4 hours
To recoat:			
minimum:	24 hours	18 hours	8 hours
maximum:	30 days	30 days	21 days
To stencil:	8 hours	4-6 hours	4 hours
To cure:	10 days	7 days	3 days

Do not apply below 50ºF
If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.

Pot Life:	6 hours	2.5 hours	2 hours
	N/A	N/A	3 hours*
	N/A	N/A	4 hours**
Sweat-in-Time:	30 minutes	15 minutes	5 minutes

*Reduced 10% Oxsol 100, exempt solvent
**Reduced 10% R7K111, exempt solvent

PRODUCT CHARACTERISTICS (CONT'D)

Shelf Life:	36 months, unopened Store indoors at 40°F to 100°F
Flash Point:	105°F, PMCC, mixed
Reducer / Clean Up:	Reducer #54, Xylene, or MEK. Use Oxsol 100 (exempt solvent).

RECOMMENDED USES

- Rail Cars
- Tank Cars

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 SSPC-SP6, 2 mil profile

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal		Sa 3	Sa 3	SP 5	1
Near White Metal		Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast		Sa 2	Sa 2	SP 6	3
Brush-Off Blast		Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	C St 2	SP 2	-
	Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature:	Do not apply below 50°F. Surface temperature must be at least 5°F above dew point.
Relative humidity:	85% maximum

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APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer / Clean Up.....Reducer #54, Xylene, or MEK
Use Oxsol 100 (exempt solvent)

Airless Spray
Pressure .....3200 – 3600 psi
Hose .....3/8”
Tip.....017” – .021”
Filter.....60 mesh
Reduction .....As needed up to 10% by volume

Conventional Spray
Gun.....Binks 95
Fluid Nozzle.....68
Air Nozzle .....68 PB
Atomization Pressure .....60 psi
Fluid Pressure .....10-20 psi
Reduction .....As needed up to 10% by volume

Brush
Brush .....Natural Bristle
Reduction .....Not recommended

Roller
Cover.....3/8"-1/2" woven with phenolic core
Reduction .....Not recommended

If specific application equipment is not listed above, equivalent equipment may be substituted.

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Do not apply below 50ºF

Mix contents thoroughly with power agitation.

Mix each component separately prior to using spray equipment.

Always-flush spray equipment with Reducer #54 prior to use.

If reducer solvent is used, add only after both components have been thoroughly mixed, after sweat-in.

Application of coating outside of the listed parameters may adversely affect coating performance.

PERFORMANCE TIPS

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates can be calculated using volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

In order to avoid blockage of spray equipment. Clean equipment before use or before periods of extended downtime with Reducer #54, R7K54.

Quick-Kick Epoxy Accelerator is acceptable for use. See its data page for details.

SAFETY PRECAUTIONS

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.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

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