



Protective & Marine Coatings

GENERAL POLYMERS® 3744 HIGH PERFORMANCE CR EPOXY

PART A	GP3744A	SERIES
PART B	GP3744B01	STANDARD HARDENER
PART B	GP3744B02	FAST CURE HARDENER

Revised April 6, 2016

PRODUCT INFORMATION

PRODUCT DESCRIPTION

GENERAL POLYMERS 3744 HIGH PERFORMANCE CR EPOXY is a high solids, two component epoxy coating and binder resin. GENERAL POLYMERS 3744 HIGH PERFORMANCE CR EPOXY may be used directly over approved primed substrates or as a gloss seal coat over decorative systems. Its outstanding broad spectrum chemical resistance provides protection in aggressive environments. GENERAL POLYMERS 3744 HIGH PERFORMANCE CR EPOXY is extremely hard wearing, impact and abrasion resistant.

ADVANTAGES

- Impact and abrasion resistant
- Stain Resistant
- Chemical Resistant
- Available with an antimicrobial agent
- Available in a fast cure version
- Acceptable for use in USDA inspected facilities

TYPICAL USES

GENERAL POLYMERS 3744 HIGH PERFORMANCE CR EPOXY should be used in areas where maintenance of a high performance, aesthetically appealing and chemical resistant epoxy system is required.

LIMITATIONS

- Slab on grade requires vapor/moisture barrier.
- Substrate must be structurally sound, dry and free of bond inhibiting contaminants
- During installation and initial cure cycle substrate and ambient air temperature must be at a minimum of 50°F (10°C). Substrate temperature must be at least 5°F (3°C) above the dew point (for lower temperature installation contact the Technical Service Department).
- Maximum dry surface temperature not to exceed 160°F (71°C).
- Strictly adhere to published coverage rates.
- Apply at 10 mils if using white for complete hiding.

SURFACE PREPARATION

Proper inspection and preparation of the substrate to receive resinous material is critical. Read and follow the "Instructions for Concrete Surface Preparation" (Form G-1) for complete details.

PRODUCT CHARACTERISTICS

Color: Clear, standard, and custom colors available

Mix Ratio: 2:1

Volume Solids: 96% ± 2%, mixed
Weight Solids: 98% ± 2%, mixed

VOC (EPA Method 24): <50 g/L; 0.41 lb/gal

Viscosity, mixed: 2,017 cps, Clear

PRODUCT CHARACTERISTICS (CONTINUED)

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns):	10 (250)	30 (500)
Coverage sq ft/gal (m ² /L):	51 (1.9)	154 (3.8)

Drying Schedule @ 6 mils (150 microns) wet:

	@ 73°F (23°C)
Standard Hardener	
To touch:	4-6 hours
To recoat:	12-16 hours
Light traffic:	24 hours minimum
Full Cure:	7 days

*If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.*

Pot Life: gallon mass 30 minutes @ 73°F (23°C)

Fast Cure Hardener

To touch:	3-4 hours
To recoat:	6-8 hours
Light traffic:	10-12 hours
Full Cure:	7 days
Shelf Life:	Part A: 36 months, unopened Part B (Standard): 36 months, unopened Part B (Fast Cure): 12 months, unopened Store indoors at 50°F (10°C) to 90°F (32°C)
Flash Point:	266°F (130°C), ASTM D 93, mixed

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1,000 cycles	100 mg loss
Adhesion	ACI 503R	300 psi
Flammability		Self extinguishing over concrete
Flexural Strength	ASTM D 790	12,400 psi
Gloss 60° Gloss Meter @ 73F, 50% RH		85 millage units
Hardness, Shore D	ASTM D 2240	80
Impact Resistance	MIL-D-3134J	Direct, inch pound greater than 160, passes Reverse, inch pound greater than 80, passes
Resistance to Elevated Temperatures	MIL-D-3134J	No slip or flow at required temperature of 158°F (70°C)
Tensile Strength	ASTM D 638	6,000 psi
Water Absorption	ASTM C 413	0.10%



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APPLICATION

APPLICATION INSTRUCTIONS

1. Premix 3744A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to introduce air into the material.

2. Add 2 parts 3744A (resin) to 1 part 3744B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

3. Apply 3744 using a squeegee or trowel and back roll with a 1/4" nap roller at a spread rate of 160-240 square feet per gallon to yield 6-8 mils WFT with no puddles making sure of uniform coverage. **Take care not to puddle materials and insure even coverage.**

4. Allow to cure 24 hours minimum before opening to traffic and water exposure.

Note: Epoxy materials will appear to be cured and "dry to touch" prior to full chemical cross linking. Allow epoxy to cure 2-3 days prior to exposure to water or other chemicals for best performance.

CLEANUP

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents.

SAFETY

Refer to the MSDS 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.

MAINTENANCE

Occasional inspection of the installed material and spot repair can prolong system life. For specific information, contact the Technical Service Department.

SHIPPING

• Destinations East of the Rocky Mountains are shipped F.O.B. Cincinnati, Ohio.

• Destinations West of the Rocky Mountains are shipped F.O.B. Victorville, California.

For specific information relating to international shipments, contact your local sales representative.

ORDERING INFORMATION

Packaging:

Part A: 1 gallon (3.8L) and
5 gallon (18.9L) containers
Part B: 1 gallon (3.8L) and
5 gallon (18.9L) containers

Weight:

9.68 ± 0.2 lb/gal ; 1.16 Kg/L
mixed, may vary by color

CHEMICAL RESISTANCE

For comprehensive chemical resistance information, consult the Chemical Resistant Guide and contact the Technical Service Department.

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.

WARRANTY

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.