



ArmorSeal
Heavy Duty Floor
Coatings

ARMORSEAL® 8100
WATER BASED EPOXY FLOOR COATING

PART A
 PART A
 PART B

B70-8100 SERIES
B70-8160 SERIES
B70V8100

GLOSS SATIN
HARDENER

Revised: November 4, 2019

PRODUCT INFORMATION

8.18

PRODUCT DESCRIPTION

ARMORSEAL 8100 is the next generation in water based epoxy floor coatings; a two-component polyamine epoxy with excellent chemical and abrasion resistance that is breathable. It is designed for use in commercial, industrial and residential floor applications. A LEED v4.1 compliant material that offers improved performance while maintaining ease of application properties common to water based materials. This versatile material is self-priming over concrete, can be used as a stand alone coating or as a receiver coat for paint chip floors. Available in a gloss or satin finish

- Breathable
- <50 g/L
- Color Retention, resists yellowing
- Resists disbondment due to Moisture Vapor Transmission (MVT)
- Ease of application

PRODUCT CHARACTERISTICS

Finish: Gloss or Satin
Color: Clear*, Tile Red, Deck Gray, Haze Gray and a wide range of tinted colors using CCE colorants
 Safety Colors
 Gloss only

* For Clear, use the Ultra Deep Base (for more detail, see Application Bulletin Performance Tips)

Volume Solids: 41% ± 2%, mixed, may vary by color
Weight Solids: 50% ± 2%, mixed, may vary by color
VOC (EPA Method 24): <50 g/L; 0.42 lb/gal, mixed
Mix Ratio: 4:1 by volume

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	5.0 (125)	12.0 (300)
Dry mils (microns)	2.0 (50)	5.0 (125)
~Coverage sq ft/gal (m²/L)	130 (3.3)	320 (8.1)

NOTE: Brush or roll to cove base or vertical surfaces may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 7.0 mils wet (175 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	1 hour	45 minutes	25 minutes
To recoat*:			
minimum:	8 hours	6 hours	3 hours
maximum:	72 hours	72 hours	72 hours
To Cure	7 days	7 days	7 days
Foot Traffic:		18 hours	
Heavy Traffic:		48 hours	
<i>Drying time is temperature, humidity, and film thickness dependent.</i>			
*If recoating after 72 hours abrade surface first.			
Pot Life:	8 hours	5½ hours	3½ hours
Sweat-in-Time:	None	None	None

Shelf Life: Part A: 24 months, unopened
 Part B: 36 months
 Store indoors at 40°F (4.5°C) to 100°F (38°C)
Flash Point: >230°F (110°C), Seta Flash, mixed
Reducer/Clean Up: Water

RECOMMENDED USES

Durable epoxy floor coating for general purpose use in industrial and commercial environments, such as:

- Warehouse Floors
- Garages
- Residential
- Automotive Showrooms
- Industrial and Commercial Floors
- Light manufacturing Plants
- Acceptable for use in USDA inspected facilities

PERFORMANCE CHARACTERISTICS

Substrate: Concrete

Surface Preparation: Clean, dry, sound

System Tested:

2 cts. ArmorSeal 8100 @ 2.0 - 4.0 mils (50-100 microns) dft

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	150 mg loss
Adhesion	ASTM D4541	550 psi concrete
Finish	Satin Gloss	15-25 units@ 85° 90+ units @ 60°
Flexibility	ASTM D 522	180° bend 1/8" mandrel
Impact Resistance	ASTM D2794	Direct 100 in.lb. Indirect 80 in.lb.
Pencil Hardness	ASTM D3363	H
Slip Resistance, Floors	ASTM C1028**, .60 Minimum Static Coefficient of Friction	Passes wet and dry, with and without SharkGrip Additive
WVP Perms (US)	Grains(hr ft ² in Hg)	Gloss – 2.0 Satin – 5.0
Hot Tire Pick-up	ITM @ 140°F (60°C)	Passes

**Test method withdrawn in 2014 without replacement



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RECOMMENDED SYSTEMS

	Dry Film Thickness / ct.	
	Mils	(Microns)
Concrete Floors, unpainted:		
1 ct. ArmorSeal 8100 (reduced with one pint of water per gallon)	2.0-4.0	(50-100)
2 cts. ArmorSeal 8100	2.0-4.0	(50-100)
Concrete Floors, previously painted:		
1 ct. Spot prime bare areas with ArmorSeal 8100	2.0-4.0	(50-100)
2 cts. ArmorSeal 8100	2.0-4.0	(50-100)
Wood Floors:		
2 cts. ArmorSeal 8100	2.0-4.0	(50-100)

The systems listed above are representative of the product's use, other systems may be appropriate.

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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.

Refer to product Application Bulletin for detailed surface preparation information.

Do not use hydrocarbon solvents for cleaning.

Minimum recommended surface preparation:
 Concrete & Masonry: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP1-3

Wood Floors: Clean, smooth, dust free

TINTING

Tint part A with CCE colorants at 100% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

APPLICATION CONDITIONS

Temperature: 50°F (10°C) minimum, 100°F (38°C) maximum
 (air, surface, and material)
 At least 5°F (2.8°C) above dew point
 Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight: 9.9 ± 0.2 lb/gal ; 1.12 Kg/L
 mixed, may vary by color

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.

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.



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APPLICATION BULLETIN

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SURFACE PREPARATIONS

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Do not use hydrocarbon solvents for cleaning.

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required.

Follow the standard methods listed below when applicable:

- ASTM D4258 Standard Practice for Cleaning Concrete.
- ASTM D4259 Standard Practice for Abrading Concrete.
- ASTM D4260 Standard Practice for Etching Concrete.
- ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
- SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
- ICRI No. 310.2R Concrete Surface Preparation.

Wood

Surface must be clean, dry and sound. Remove any oils and dirt from the surface using a degreasing solvent or strong detergent. Sand to remove any loose or deteriorated surface wood and to obtain a proper surface profile. Prime with recommended primer and paint as soon as possible. No painting should be done immediately after a rain or during foggy weather. Knots and pitch streaks must be scraped, sanded and spot primed before full coat of primer is applied. All nail holes or small openings must be properly caulked.

Previously Painted Surfaces

If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

APPLICATION CONDITIONS

Temperature: 50°F (10°C) minimum, 100°F (38°C) maximum (air, surface, and material)
 At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean Up Water
 Clear/Ultradeep tint base
 requires reduction of 5% by volume

Brush
 Brush..... Nylon/Polyester or Natural Bristle
 Reduction..... as needed up to 10% by volume, for primer coat only

Roller
 Cover 1/4"-3/8" woven with solvent resistant core
 Reduction..... as needed up to 10% by volume, for primer coat only

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

Surface Preparation Standards

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



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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine four parts by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation.

If reducer is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	5.0 (125)	12.0 (300)
Dry mils (microns)	2.0 (50)	5.0 (125)
~Coverage sq ft/gal (m²/L)	130 (3.3)	320 (8.1)

NOTE: Brush or roll to cover base or vertical surfaces may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 7.0 mils wet (175 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	1 hour	1 hour	30 minutes
To recoat*:			
minimum:	8 hours	6 hours	3 hours
maximum:	72 hours	72 hours	72 hours
To Cure	7 days	7 days	7 days
Foot Traffic:	36 hours	18 hours	8 hours
<i>Drying time is temperature, humidity, and film thickness dependent.</i>			
<i>*If recoating after 72 hours, abrade surface first.</i>			
Pot Life:	8 hours	5½ hours	3½ hours
Sweat-in-Time:	None	None	None

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water.

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PERFORMANCE TIPS

During the early stages of drying, the coating is sensitive to rain, dew, high humidity, and moisture condensation. Plan painting schedules to avoid these influences during the first 16-24 hours of curing.

Spreading rates are calculated on 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.

For Clear applications, use the Ultra Deep Base, reduce 5% with potable water. When first mixed and applied, the material is white, but will dry Clear. DO NOT exceed 10 mils WFT. Avoid puddling material at edges or in depressions as it may not dry clear.

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.

Always test adhesion by applying a test patch of 2-3 square feet. Allow to dry one week before checking adhesion.

Do not use hydrocarbon solvents for cleaning.

Anti-slip additives, such as H&C SharkGrip® or Armorseal Hi-Wear Additive, may be added to the coating to provide some slip resistance. This product should not be used in place of a non-skid finish.

Refer to Product Information sheet for additional performance characteristics and properties.

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