



ArmorSeal Heavy Duty Floor Coatings

ARMORSEAL® 5020 EPOXY FLOOR RESURFACER

PRIMER & RESURFACER

PART A	B58-5020 SERIES	RESIN
PART B	B60-5020 SERIES	HARDENER
	B58DQ5022 SERIES	AGGREGATE

Revised 9/09

PRODUCT INFORMATION

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PRODUCT DESCRIPTION

ARMORSEAL 5020 EPOXY FLOOR RESURFACER is a trowelable epoxy surfacing and leveling compound for new and old floors of concrete, wood, or steel where a high degree of chemical and abrasion resistance is required. The physical properties of ArmorSeal 5020 are much higher than those of concrete and its excellent abrasion and impact resistance recommend it for high traffic areas.

PRODUCT CHARACTERISTICS

Finish:	Low Sheen	
Color: (topcoat)	Haze Gray	
Volume Solids: mixed	Primer 53% ± 2%	Resurfacer 100%
VOC (EPA Method 24): mixed	Primer g/L <420 lb/gal <3.5	Resurfacer <250 <2.08
Mix Ratio: by volume 1:1	2 premeasured units: Primer Resurfacer: 2:1 less aggregate	

Recommended Spreading Rate per coat:

	Primer		Resurfacer	
	Min.	Max.	Min.	Max.
Wet mils (microns)	2.0	50	4.0	100
Dry mils (microns)	1.0	25	2.0	50
~Coverage sq ft/gal (m²/L)	425	10.4	850	20.8
Theoretical coverage sq ft/gal (m²/L) @ 1 mil/25 micron dft	848 (20.8)		1600 (39)	

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

Drying Schedule @ 50% RH, @ 72°F/22°C:

	Primer	Resurfacer
To touch:	2 hours	4-6 hours
To recoat:	2 hours	N/A
To topcoat:	2 hours	12-18 hours
To cure:	7 days	18 hours
Foot traffic:	2-3 hours	12 hours

Primer can be topcoated even if the surface is still tacky.

Drying time is temperature, humidity, and film thickness dependent.

Pot Life:	8 hours	45 minutes
Sweat-in-Time:	None required	

Shelf Life:	18 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C)	
Flash Point: PMCC, mixed	Primer 87°F (30°C)	Resurfacer 200°F (93°C)
Reducer:	Not recommended	
Clean Up:	Xylene, R2K4	

RECOMMENDED USES

- As a high build epoxy floor resurfacer
- Food process industries: dairies, bakeries, breweries, bottling plants and packing houses
- Pharmaceutical Houses
- Chemical Process and Refinery Industries
- Industrial Plants
- Utilities: Sewage and Water Treatment Plants, Generating Stations
- Suitable for use in USDA inspected facilities

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance		5 times concrete
Adhesion		Excellent
Compressive Strength	ASTM D695	10,000 psi (69 MPa)
Direct Impact Resistance		Excellent
Dry Heat Resistance	ASTM D2485	150°F (66°C)
Flexural Strength	ASTM D790	3,466 psi (23.9 MPa)
Service Temperature		-10°F (-23°C) to 150°F (66°C)

- Chemical resistant
- Solvent resistant
- Abrasion resistant
- Impact resistant



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RECOMMENDED SYSTEMS

	Dry Film Thickness / ct.	
	Mils	(Microns)
Concrete/Masonry:		
1 ct. ArmorSeal 5020 Primer	1.0-2.0	(25-50)
1 ct. ArmorSeal 5020 Resurfacer	250.0	(6250)
Optional		
1 ct. ArmorSeal 1000HS Epoxy	3.0-5.0	(75-125)
or ArmorSeal 650SL/RC	10.0-30.0	(250-750)
Steel:		
1 ct. Recoatable Epoxy Primer	4.0-5.0	(100-125)
1 ct. ArmorSeal 5020 Resurfacer	250.0	(6250)
Optional		
1 ct. ArmorSeal 1000HS Epoxy	3.0-5.0	(75-125)
or ArmorSeal 650SL/RC	10.0-30.0	(250-750)

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

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.

Minimum recommended surface preparation:

* Iron & Steel:	SSPC-SP6/NACE 3
Concrete & Masonry:	SSPC-SP13/NACE 6, or ICRI 03732, CSP1-3

* Primer required

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	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature:	55°F (13°C) minimum, 95°F (35°C) maximum (air, surface, and material) At least 10°F (5.6°C) above dew point
Relative humidity:	85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging: 20 sq ft (0.5 m²) kits and 480 sq ft (11.8 m²) kits (contains Primer and Resurfacer)

Weight Per Kit:
20 sq ft (0.5 m²) kit: 49 lb/gal ; 5.9 Kg/L total

SAFETY PRECAUTIONS

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.

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.

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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APPLICATION BULLETIN

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SURFACE PREPARATIONS

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.

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI 03732, 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.

Always follow the standard methods listed below:

- 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 03732 Concrete Surface Preparation.

Iron & Steel (atmospheric service)

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

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	DC St 2	DC St 2	SP 3	-
Pitted & Rusted	DC St 2	DC St 2	SP 3	-
Rusted	DC St 3	DC St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted DC St 3	DC St 3	SP 3	-

APPLICATION CONDITIONS

Temperature:	55°F (13°C) minimum, 95°F (35°C) maximum (air, surface, and material) At least 10°F (5.6°C) above dew point
Relative humidity:	85% maximum

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.

ReducerNot recommended

Clean UpXylene, R2K4

Conventional Spray—For Primer only

Gun	Binks 95
Tip	66
Cap	63PB
Atomization Pressure.....	50 psi
Fluid Pressure.....	10 psi

Brush—For Primer only

Brush.....Nylon/Polyester or Natural Bristle

Roller—For Primer only

Cover 1/2" woven with solvent resistant core

Equipment—For Resurfacer

Metal Float	for Resurfacer
Steel Trowel	for Resurfacer, 3" x 12"

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



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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

After proper surface preparation, apply Primer to an area no larger in size than can be surfaced within 8 hours. Prime all surfaces with ArmorSeal 5020 Primer 2 hours before application of ArmorSeal 5020 Epoxy Floor Resurfacer.

Primer:

The ArmorSeal 5020 unit includes enough Primer for the unit area. The Primer is to be applied to new or old concrete floors. Power mix Part A and Part B with a Jiffy mixer blade and drill and let stand 10 minutes prior to application. Pour the mixed Primer onto the area to be primed, pouring in a narrow ribbon paralleling a wall or work area. Apply Primer with a 1/2" nap roller, rolling out a sufficient quantity to ensure complete wetting of floor surface. Apply Primer in a liberal fashion on very porous surfaces. For irregular surfaces such as cracks, potholes and eroded areas and areas adjacent to walls and corners, application by brush is recommended. Check the primed area for holidays and dry spots, roll out any puddles. Primer can also be easily sprayed using conventional or airless spray equipment.

Resurfacer:

Premix both components. Pour hardener into slack-filled resin can and mix 1-2 minutes until homogenous. Then pour and scrape entire mixture into a clean 5 gallon (18.9L) metal pail. Mount the metal pail into a 5 gallon (18.9L) portable electric mixer.* Start mixer and operate for 1 minute, working mixing blade slowly through its full arc. Slowly add all aggregate from bag over a period of 2-3 minutes. Continue mixing for 2 minutes until aggregate is wet-out thoroughly. Immediately empty mixture onto primed floor surface and spread to desired thickness with a metal float or by screeding. Finish surface with a 3" x 12" steel trowel. Keep trowel clean with Xylene, R2K4. Pitch to drains as required.

* If a 5 gallon (18.9L) portable electric mixer is not available, use conventional concrete mixing techniques. Contact your Sherwin-Williams representative for specific information, or if in doubt about procedures, techniques or equipment.

Using a steel trowel wetted with Xylene, R2K4 and held at an angle, apply pressure to the coating. Use a sweeping motion to level, pack, and close the coating surface. A coating surface free of lap marks is achieved by maintaining a wet edge through continuous application of freshly mixed material. A properly finished surface will show few trowel marks and the surface will be closed. Areas where ArmorSeal 5020 will butt against existing concrete need to be "keyed" by saw cutting or chipping a channel 1/4" deep by 1" wide around the perimeter of the resurfaced area and beveling material down to the level of existing concrete. Clean all adjacent floor areas and equipment with R2K4 (Xylene) before ArmorSeal 5020 cures and hardens.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Xylene R2K4. Clean tools immediately after use with Xylene R2K4. Follow manufacturer's safety recommendations when using Xylene.

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APPLICATION PROCEDURES (CONT'D)

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

Recommended Spreading Rate per coat:

	Primer		Resurfacer	
	Min.	Max.	Min.	Max.
Wet mils (microns)	2.0 50	4.0 100	250.0 (1/4")	6,250
Dry mils (microns)	1.0 25	2.0 50	250.0 (1/4")	6,250
~Coverage sq ft/gal (m ² /L)	425 10.4	850 20.8	20 (0.50)	
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 50% RH, @ 72°F/22°C:

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To touch:	2 hours	4-6 hours
To recoat:	2 hours	N/A
To topcoat:	2 hours	12-18 hours
To cure:	7 days	18 hours
Foot traffic:	2-3 hours	12 hours

Primer can be topcoated even if the surface is still tacky.

Drying time is temperature, humidity, and film thickness dependent.

Pot Life:	8 hours	45 minutes
Sweat-in-Time:	None required	

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

PERFORMANCE TIPS

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.

No reduction of material is recommended as it can affect film build, appearance, and adhesion.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

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

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