ArmorSeal
Heavy Duty
Floor
Coatings

8.35
ARMORSEAL® 5020
EPOXY FLOOR RESURFACER

PRIMER & RESURFACER

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

PRODUCT INFORMATION

Revised 3/07

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.

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

PRODUCT CHARACTERISTICS

Finish: Low Sheen

Color: (topcoat) Haze Gray

Volume Solids:	**Primer**	**Resurfacer**
mixed	53% ± 2%	100%

VOC (EPA Method 24):		**Primer**	**Resurfacer**
mixed	g/L	<420	<250
	lb/gal	<3.5	<2.08

Mix Ratio: 2 premeasured units:

by volume	**Primer**	**Resurfacer:**
	1:1	2:1 less aggregate

Recommended Spreading Rate per coat:

	Primer	**Resurfacer**
Wet mils:	2.0 - 4.0	250.0 (1/4")
Dry mils:	1.0 - 2.0	250.0 (1/4")
Coverage (sq ft/gal/unit):	425 - 850	20

Drying Schedule @ 50% RH, @ 72°F:

	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:	**Primer**	**Resurfacer**
@ 72°F, 50% RH	8 hours	45 minutes

Sweat-in-time: None required

Shelf Life: 18 months, unopened
Store indoors at 40°F to 100°F.

Flash Point:	**Primer**	**Resurfacer**
PMCC, mixed	87°F	200°F

Reducer: Not recommended

Clean Up: Xylene, R2K4

PHYSICAL PROPERTIES

Abrasion Resistance:
Result: 5 times concrete

Adhesion:
Result: Excellent

Direct Impact Resistance:
Result: Excellent

Dry Heat Resistance:
Method: ASTM D2485
Result: 150°F

Compressive Strength:
Method: ASTM D695
Result: 10,000 psi (69 MPa)

Flexural Strength:
Method: ASTM D790
Result: 3,466 psi (23.9 MPa)

Service Temperature:
Result: -10°F to 150°F

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

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PRODUCT INFORMATION

RECOMMENDED SYSTEMS

Concrete/Masonry:
1 ct. ArmorSeal 5020 Primer @ 1.0 - 2.0 mils dft
1 ct. ArmorSeal 5020 Resurfacer @ 250.0 mils dft
Optional
1 ct. ArmorSeal 1000HS Epoxy @ 3.0 - 5.0 mils dft
or ArmorSeal 650SL/RC @ 10.0 - 30.0 mils dft

Steel:
1 ct. Recoatable Epoxy Primer @ 4.0 - 5.0 mils dft
1 ct. ArmorSeal 5020 Resurfacer @ 250.0 mils dft
Optional
1 ct. ArmorSeal 1000HS Epoxy @ 3.0 - 5.0 mils dft
or ArmorSeal 650SL/RC @ 10.0 - 30.0 mils dft

The systems listed above are representative of the products 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

TINTING

Do not tint.

APPLICATION CONDITIONS

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

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:	20 sq ft kits and 480 sq ft kits (contains Primer and Resurfacer)
Weight Per Kit:	
20 sq ft kit:	49 lb total
480 sq ft kit:	1,176 lb total

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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DISCLAIMER

WARRANTY

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APPLICATION BULLETIN

Revised 3/07

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.

Poured Concrete
New
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI 03732, CSP 1-3. Surface must be clean, dry, sound, and offer sufficient profile to achieve adequate adhesion. Minimum substrate cure is 28 days at 75°F. Remove all form release agents, curing compounds, salts, efflorescence, laitance, and other foreign matter by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. Refer to ASTM D4260. Rinse thoroughly to achieve a final pH between 8.0 and 11.0. Allow to dry thoroughly prior to coating.

Old
Surface preparation is done in much the same manner as new concrete; however, if the concrete is contaminated with oils, grease, chemicals, etc., they must be removed by cleaning with a strong detergent. Refer to ASTM D4258. Form release agents, hardeners, etc. must be removed by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. If surface deterioration presents an unacceptably rough surface, ArmorSeal 5020 Floor Resurfacer is recommended to patch and resurface damaged concrete.

Fill all cracks, voids and bugholes with ArmorSeal Crack Filler.

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.

APPLICATION CONDITIONS

Temperature:	55°F minimum, 95°F maximum (air, surface, and material) At least 10°F 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.

Reducer ..... Not recommended

Clean Up ..... Xylene, 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 phenolic 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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ArmorSeal Heavy Duty Floor Coatings

8.35A ARMORSEAL® 5020

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APPLICATION BULLETIN

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, pot-holes 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 metal pail. Mount the metal pail into a 5 gallon 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 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.

(continued on next column)

APPLICATION PROCEDURES (CONTINUED)

Recommended Spreading Rate per coat:

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Pot Life:	**Primer**	**Resurfacer**
@ 72°F, 50% RH	8 hours	45 minutes

Sweat-in-time: None required

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.

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.

SAFETY PRECAUTIONS

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