ArmorSeal Heavy Duty Floor Coatings

ARMORSEAL® 650 HB/RC
100% SOLIDS SELF-LEVELING EPOXY

PART A	B58Q	SERIES
PART B	B60Q	HARDENERS
PART C	B58DQ550	HIGH BUILD ADDITIVE

Revised 2/12

PRODUCT INFORMATION

8.26

PRODUCT DESCRIPTION

ARMORSEAL 650 HB/RC 100% SOLIDS SELF-LEVELING EPOXY is a three-component, heavy duty floor system that provides a high gloss, seamless, hygienic surface that is a extremely hard wearing and durable. Should be used for applications requiring film builds greater than 30.0 mils (750 microns) dft.

- Chemical Resistant
- Impact Resistant
- Abrasion Resistant
- Outstanding application properties

PRODUCT CHARACTERISTICS

Finish:	Gloss
Color:	Haze Gray, Deck Gray, White, Sandstone, Tile Red, and a wide range of colors possible
Volume Solids:	98% ± 2%, mixed
Weight Solids:	98% ± 2%, mixed
VOC (EPA Method 24):	<100 g/L; 0.83 lb/gal, mixed
Mix Ratio:	3 components, premeasured

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**30.0** (750)	**100.0** (2500)
Dry mils (microns)	**30.0** (750)	**100.0** (2500)
~Coverage sq ft/gal (m^2/L)	**15** (0.36)	**50** (1.2)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**1600** (39)	

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

Drying Schedule @ 30.0 mils wet (750 microns):

@ 72°F/22°C
50% RH

To touch:	6-12 hours
To recoat:	
minimum:	8 hours
maximum:	72 hours
Foot traffic:	24 hours
Heavy service:	72 hours
To cure:	5 days

If recoating after 72 hours, surface must be abraded.

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

Pot Life:	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:	>200°F (93°C), PMCC, mixed
Reducer:	Not recommended
Clean Up:	Reducer #54, R7K54

RECOMMENDED USES

Recommended for applications such as:

- Clean rooms
- Laboratories
- Manufacturing areas
- Aircraft hangers
- Aisleways
- Suitable for use in USDA inspected facilities

Higher film builds (greater than 30 mils / 750 microns) of ArmorSeal 650 HB/RC are especially suited for areas with mildly spalled concrete or areas requiring a very high build coating because of heavy traffic or other abrasive conditions.

PERFORMANCE CHARACTERISTICS

- Abrasion resistant
- Excellent adhesion properties
- Chemical resistant
- Impact resistant
- Self - leveling properties
- Provides a seamless, ultra-high build, durable coating
- Solvent resistant
- Dry heat resistance: 200°F (93°C)

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Concrete:			
1 ct.	ArmorSeal 33 Primer	8.0	(200)
1 ct.	ArmorSeal 650HB/RC	30.0-100.0	(750-2500)
Steel:			
1 ct.	Recoatable Epoxy Primer	4.0-5.0	(100-125)
1 ct.	ArmorSeal 650HB/RC	30.0-100.0	(750-2500)

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 Technical Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

*Iron & Steel:	SSPC-SP6/NACE 3
*Concrete & Masonry:	SSPC-SP13/NACE 6 or ICRI No. 310.2, 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	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Tinting acceptable for the tint bases only. Use Maxitoner Colorants only at 50% tint strength. Five minutes minimum mixing on a mechanical shaker is required for complete making of color.

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:	1 gallon (3.78L) and 5 gallon (18.9L) base units plus appropriate amount of High Build Additive (8 lb/gal required) 6 gallon (22.6L) mixing containers available
Weight:	12.7 ± 0.2 lb/gal ; 1.5 Kg/L, mixed

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

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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 No. 310.2, 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. 310.2 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 / 50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

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, additional abrasion of the surface and/or removal of the previous coating may be necessary. Retest surface for adhesion. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

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:	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.

Reducer .....Not recommended

Clean Up .....Reducer #54, R7K54

Roller
Cover .....3/8" woven with solvent resistant core

Squeegee .....3/16" V-notched

Trowel .....acceptable

Spike Roller .....Required

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.

Use electric or air mixer (approximately 250-500 rpm) with metal mixing blade (Jiffy Model ES or equal). Premix both components for 1-2 minutes, then pour hardener contents into slack-filled resin can. Mix 2-3 minutes, moving blade around can while mixing. Avoid whipping air into material. Next, pour entire epoxy mixture into 6-10 gallon (22.7-37.8L) mixing container. Continue mixing while slowly adding High Build Additive. Mix for approximately one minute or until additive is evenly dispersed.

With material freshly stirred, pour substantial portion on floor in a bead 18" to 24" wide. Using 3/16" V-notched rubber squeegee, pull through material until bead almost runs out. Pour new material onto end of bead to maintain wet edge. By holding the squeegee perpendicular to floor and applying very little pressure, 50-55 mils (1250-1275 microns) wft can be applied. By tilting the squeegee towards the applicator and applying increasing pressure, thickness can be progressively decreased to a minimum of 30 mils (750 microns) wft. Check film thickness frequently. Backroll material immediately with a 3/8" soft woven roller to facilitate leveling. After 20-30 minutes setup time, material should be rolled with a spiked roller to remove any entrapped air, Do not spike roll after 45 minutes.

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

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**30.0** (750)	**100.0** (2500)
Dry mils (microns)	**30.0** (750)	**100.0** (2500)
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 30.0 mils wet (750 microns):

	@ 72°F/22°C ***50% RH***
To touch:	6-12 hours
To recoat:	
minimum:	8 hours
maximum:	72 hours
Foot traffic:	24 hours
Heavy service:	72 hours
To cure:	5 days

If recoating after 72 hours, surface must be abraded.

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

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

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 Reducer #54, R7K54. Clean tools immediately after use with Reducer #54, R7K54. Follow manufacturer's safety recommendations when using any solvent.

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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 apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

When recoating ArmorSeal 650 HB/RC it must be done no less than 8 hours and no more than 72 hours after applying the first coat. If this "window" has passed, the surface of the cured ArmorSeal 650 HB/RC must be abraded to ensure the adhesion of subsequent coats.

When coating previously painted surfaces, always apply a test patch and examine for lifting and proper intercoat adhesion. If lifting occurs, remove the old coating or apply an appropriate barrier coat.

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

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