



**ArmorSeal**  
**Heavy**  
**Duty Floor**  
**Coatings**

**ARMORSEAL®**  
**FLOOR-PLEX® 7100**  
**WATER BASED EPOXY FLOOR COATING**

**PART A**  
**PART B**

**B70-400**  
**B70V400**

**SERIES**  
**HARDENER**

Revised 9/09

**PRODUCT INFORMATION**

8.13

**PRODUCT DESCRIPTION**

**ARMORSEAL FLOOR-PLEX 7100** is a heavy duty, interior, low VOC, low odor, two component, catalyzed, water borne, polyamide epoxy floor coating. This dries rapidly to an extra tough, gloss finish which will withstand industrial traffic, abrasion, and general chemical attack. Provides overall chemical resistance comparable to that of most solvent borne epoxy systems.

- Resists yellowing
- Water clean up
- Impact and abrasion resistant
- Outstanding application properties
- Chemical resistant
- Low odor

**PRODUCT CHARACTERISTICS**

**Finish:** Gloss  
**Color:** Haze Gray, Deck Gray, Tile Red, White and a wide range of tinted colors  
**Volume Solids:** 41% ± 2%, White, mixed may vary by color  
**Weight Solids:** 51% ± 2%, mixed, may vary by color  
**VOC (EPA Method 24):** <250 g/L; 2.15 lb/gal, mixed, may vary by color  
**Mix Ratio:** 1:1 by volume

**Recommended Spreading Rate per coat:**

	Minimum	Maximum
<b>Wet mils</b> (microns)	<b>3.8</b> 95	<b>5.0</b> 125
<b>Dry mils</b> (microns)	<b>1.5</b> 40	<b>2.0</b> 50
<b>~Coverage sq ft/gal</b> (m <sup>2</sup> /L)	<b>328</b> 8.0	<b>437</b> 10.7
Theoretical coverage <b>sq ft/gal</b> (m <sup>2</sup> /L) @ 1 mil / 25 microns dft	<b>656</b> 16.0	

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

**Drying Schedule @ 4.0 mils wet (100 microns):**

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
<b>To touch:</b>	2 hours	1 hour	30 minutes
<b>To recoat*:</b>	12 hours	8 hours	4 hours
<b>Foot traffic:</b>	48 hours	24 hours	12 hours
<b>Heavy traffic:</b>	96 hours	72 hours	48 hours
<i>Drying time is temperature, humidity, and film thickness dependent.</i>			
<i>*If recoating after 30 days, abrade surface first.</i>			
<b>Pot Life:</b>	8 hours	4 hours	1 hour
<b>Sweat-in-Time:</b>	45 minutes	30 minutes	15 minutes

**Shelf Life:** 12 months, unopened  
 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  
 Clear tint base requires reduction of 5% by volume

**RECOMMENDED USES**

For use over prepared concrete floors or previously painted floors in sound condition.

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

- Schools
- Laboratories
- Clean rooms
- Meets ADA requirements for slip resistance for floors.
- Suitable for use in USDA inspected facilities

**PERFORMANCE CHARACTERISTICS**

**Substrate\*:** Concrete

**Surface Preparation\*:** Clean, dry, sound

**System Tested\*:**

1 ct. ArmorSeal Floor-Plex 7100 Primer @ 2.0 mils (50 microns) dft  
 1 ct. ArmorSeal Floor-Plex 7100 Coating @ 2.0 mils (50 microns) dft  
 \*unless otherwise noted below

Test Name	Test Method	Results
<b>Abrasion Resistance</b>	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	107 mg loss
<b>Adhesion</b>	ASTM D4541	941 psi, failure of block
<b>Direct Impact Resistance, on steel</b>	ASTM D2794	75 in. lb.
<b>Dry Heat Resistance</b>	ASTM D2485	200°F (93°C), intermittent 250°F (121°C)
<b>Flame Spread Rating</b>	ASTM E84 Tunnel Test	Class A on noncombustible surfaces
<b>Flexibility</b>	ASTM D522, 180° bend, 1/8" mandrel, on steel	Passes
<b>Hot Tire Pick-up</b>	ITM @ 140°F (60°C)	Passes
<b>Scrub Resistance</b>	Federal Test Method 141-6192	10,000 cycles
<b>Slip Resistance, Floors</b>	ASTM C1028-96, .60 minimum Static Coefficient of Friction	Passes wet and dry, with and without SharkGrip Additive



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**RECOMMENDED SYSTEMS**

	Dry Film Thickness / ct.	
	Mils	(Microns)
<b>Concrete Floors, unpainted:</b>		
1 ct. ArmorSeal Floor-Plex 7100 Primer	1.5-2.0	(40-50)
2 cts. ArmorSeal Floor-Plex 7100 Finish	1.5-2.0	(40-50)
<b>Concrete Floors, unpainted:</b>		
1 ct. ArmorSeal Floor-Plex 7100 Finish (reduced with one pint of water per gallon)		
2 cts. ArmorSeal Floor-Plex 7100 Finish	1.5-2.0	(40-50)
<b>Concrete Floors, previously painted:</b>		
1 ct. Spot prime bare areas with 1 ct. ArmorSeal Floor-Plex 7100 Primer	1.5-2.0	(40-50)
2 cts. ArmorSeal Floor-Plex 7100 Finish	1.5-2.0	(40-50)
<b>Concrete:</b>		
1 ct. ArmorSeal Floor-Plex 7100 Primer	1.5-2.0	(40-50)
2 cts. ArmorSeal Floor-Plex 7100 Finish	1.5-2.0	(40-50)

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

**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.

**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 03732, CSP1 -3

Surface Preparation Standards					
Condition of Surface	ISO 8501-1 BS709: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	SP 2	-	
	Pitted & Rusted	D St 2	SP 2	-	
Power Tool Cleaning	Rusted	C St 3	SP 3	-	
	Pitted & Rusted	D St 3	SP 3	-	

**TINTING**

Tint part A with EnviroToners at 150% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

**APPLICATION CONDITIONS**

Temperature: 50°F (10°C) minimum, 120°F (49°C) maximum  
 (air, surface, and material)  
 At least 5°F (2.8°C) above dew point

Relative humidity: 75% 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 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.



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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.

**Do not use hydrocarbon solvents for cleaning.**

**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.

**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.

**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 16	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	OC St 2	OC St 2	SP 8	-
Pitted & Rusted	OC St 2	OC St 2	SP 8	-
Power Tool Cleaning	Rusted	OC St 3	SP 3	-
Pitted & Rusted	D St 3	D St 3	SP 3	-

**APPLICATION CONDITIONS**

Temperature: 50°F (10°C) minimum, 120°F (49°C) maximum (air, surface, and material) At least 5°F (2.8°C) above dew point

Relative humidity: 75% 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/Clean Up** .....Water  
 Clear tint base requires reduction of 5% by volume

**Brush**  
 Brush.....Nylon/Polyester or Natural Bristle  
 Reduction.....as needed up to 12½% by volume, for primer coat only

**Roller**  
 Cover .....1/4"-3/8" woven with solvent resistant core  
 Reduction.....as needed up to 12½% by volume, for primer coat only

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.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated. Re-stir before using.

If reducer is used, add only after both components have been thoroughly mixed, after sweat-in. Clear tint base requires reduction of 5% by volume.

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

**Recommended Spreading Rate per coat:**

	Minimum	Maximum
<b>Wet mils</b> (microns)	<b>3.8</b> 95	<b>5.0</b> 125
<b>Dry mils</b> (microns)	<b>1.5</b> 40	<b>2.0</b> 50
<b>~Coverage sq ft/gal</b> (m <sup>2</sup> /L)	<b>328</b> 8.0	<b>437</b> 10.7
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*NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.*

**Drying Schedule @ 4.0 mils wet (100 microns):**

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
<b>To touch:</b>	2 hours	1 hour	30 minutes
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<b>Heavy traffic:</b>	96 hours	72 hours	48 hours
<i>Drying time is temperature, humidity, and film thickness dependent.</i>			
<i>*If recoating after 30 days, abrade surface first.</i>			
<b>Pot Life:</b>	8 hours	4 hours	1 hour
<b>Sweat-in-Time:</b>	45 minutes	30 minutes	15 minutes

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.

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®, 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.

**SAFETY PRECAUTIONS**

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