ArmorSeal Heavy Duty Floor Coatings

ARMORSEAL® TREAD-PLEX™

100% ACRYLIC WATER BASED FLOOR COATING

B90 SERIES

Revised: August 12, 2019

PRODUCT INFORMATION

8.12

PRODUCT DESCRIPTION

ARMORSEAL TREAD-PLEX is a general purpose, interior/exterior, 100% acrylic, low odor, waterborne floor coating. This dries rapidly to a tough, alkali resistant finish which will withstand hard wear, abrasion, grease, oils, and cleaning equipment.

- One component
- Fast dry
- Slip resistant properties
- Abrasion resistant
- Outstanding application properties
- Water clean up

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Wide variety of colors available
Volume Solids:	43% ± 2%, may vary by color
Weight Solids:	55% ± 2%, may vary by color
VOC (EPA Method 24):	<100 g/L; .83 lb/gal

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**3.5** (88)	**4.5** (112)
Dry mils (microns)	**1.5** (40)	**2.0** (50)
~Coverage sq ft/gal (m^2/L)	**345** (8.4)	**460** (11.3)
Theoretical coverage **sq ft/gal** (m^2/L) @ 1 mil / 25 microns dft	**688** (16.8)	

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):

	@ 55°F/13°C	@ 77°F/25°C *50% RH*	@ 100°F/38°C
To touch:	45 minutes	30 minutes	10 minutes
To recoat:	6 hours	4 hours	30 minutes
Foot traffic:	18 hours	8 hours	1 hour
Heavy traffic:	24 hours	18 hours	6 hours
To cure:	7 days	7 days	7 days

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

Shelf Life:	24 months, unopened Store indoors at 50°F (10°C) to 100°F (38°C)
Flash Point:	>200°F (93°C), PMCC
Reducer/Clean Up:	Water

RECOMMENDED USES

For use over prepared concrete and wood floors, steps, stairwells, aisleways, or previously painted floor surfaces in sound condition.

- Laboratories
- Light assembly and production areas
- Hospitals
- Industrial/commercial office areas
- Helipads
- Not recommended for areas subject to hot tire pickup
- 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*:

2 cts: ArmorSeal Tread-Plex @ 4.0 mils (100 microns) dft

*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	No more than 37 mg loss
Adhesion	ASTM D4541; ASTM D3359	702 psi (ASTM D4541); 5A (ASTM D3359)
Direct Impact Resistance, on steel	ASTM D2794	30 in. lb.
Dry Heat Resistance	ASTM D2485	150°F (66°C), intermittent at 200°F (93°C)
Flexibility	ASTM D522, 180° bend, 1/8" mandrel	Passes
Humidity Resistance	ASTM D4585, 500 hours	Rating 10 per ASTM D714 for blistering
Pencil Hardness	ASTM D3363	F
Scrub Resistance (3 mils dft)	ASTM D2486, Section 8	Passes 1000 cycles minimum
Slip Resistance, Floors	ASTM C1028**, .60 Minimum Static Coefficient of Friction	Passes wet and dry, with and without SharkGrip Additive
Wet Adhesion (one coat @ 2.0 mils dft)	TT-P-1511A, 6000 cycles	Passes

**Test method withdrawn in 2014 without replacement

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Concrete Floors:			
2 cts.	ArmorSeal Tread-Plex	1.5-2.0	(40-50)
Wood Floors:			
2 cts.	ArmorSeal Tread-Plex	1.5-2.0	(40-50)
Previously Painted Floors in Sound Condition:			
1-2 cts.	ArmorSeal Tread-Plex	1.5-2.0	(40-50)

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:

Concrete Floors: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3

Wood Floors: Clean, smooth, dust free

Do not use hydrocarbon solvents for cleaning

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	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

Do not tint package colors. Pastel and Ultradeep bases tint at 100% strength with EnviroToner, BAC, or CCE. Better performance will be achieved with Envirotoners. 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: 10.7 ± 0.2 lb/gal ; 1.3 Kg/L, 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.

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.

Do not use hydrocarbon solvent 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.

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, 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	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	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	-

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. 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

Brush
Brush.....Nylon/Polyester
Reduction.....As needed up to 6% by volume

Roller
Cover .....1/4"-3/8" woven with solvent resistant core
Reduction.....As needed up to 6% by volume

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.

Mixing Instructions: Mix paint thoroughly with low speed power agitation prior to use. Avoid vigorous agitation. Make certain no pigment remains on bottom of can.

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

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**3.5** (88)	**4.5** (112)
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

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To cure:	7 days	7 days	7 days

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

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. After cleaning, flush spray equipment with mineral spirits to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using mineral spirits.

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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.

This product is not slip resistant where moisture, water, grease, or other liquids may be present.

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.

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