**PRODUCT INFORMATION**

**Product Description**

**Product Characteristics**

**Recommended Uses**

**Performance Characteristics**

**Product Description**

ARMORSEAL 1000HS is a high solids, heavy duty, two-component, catalyzed, polyamide epoxy coating formulated for demanding marine and industrial requirements. This dries rapidly to a tough, high gloss finish with excellent resistance to alkalies, abrasion, corrosion, and chemical attack.

- Suitable for use in USDA inspected facilities
- Chemical Resistant
- Impact Resistant
- Abrasion Resistant

**Product Characteristics**

<table>
<thead>
<tr>
<th>Finish:</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Clear, Haze Gray, Deck Gray, White, Sandstone, Tile Red, Safety Yellow, and a wide range of tinted colors</td>
</tr>
<tr>
<td>Volume Solids, mixed:</td>
<td>colors—65% ± 2%, White may vary by color clear—61% ± 2%</td>
</tr>
<tr>
<td>Weight Solids, mixed:</td>
<td>74% ± 2%, may vary by color</td>
</tr>
<tr>
<td>VOC (EPA Method 24), mixed, may vary by color:</td>
<td>colors Unreduced: 330 g/L; 2.75 lb/gal colors Reduced 10%: 365 g/L; 3.05 lb/gal clear 392 g/L; 3.27 lb/gal</td>
</tr>
<tr>
<td>Mix Ratio:</td>
<td>1:1 by volume</td>
</tr>
<tr>
<td>Recommended Spreading Rate per coat:</td>
<td>Wet mils: 5.0 - 8.0 Dry mils: 3.0 - 5.0 Coverage: 206 - 350 sq ft/gal approximate</td>
</tr>
<tr>
<td>NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.</td>
<td></td>
</tr>
<tr>
<td>Drying Schedule @ 6.0 mils wet @ 50% RH:</td>
<td>@ 50°F @ 77°F @ 120°F</td>
</tr>
<tr>
<td>To touch:</td>
<td>4 hours 2 hours 30 minutes</td>
</tr>
<tr>
<td>To recoat:</td>
<td>minimum: 24 hours 8 hours 4 hours maximum: 7 days 7 days 7 days Foot Traffic: 48 hours 24 hours 12 hours Heavy Traffic 4-5 days 48-72 hrs 24-36 hrs To cure: 10 days 7 days 4 days</td>
</tr>
<tr>
<td>Pot Life:</td>
<td>6 hours 4 hours 2 hours</td>
</tr>
<tr>
<td>Sweat-in-Time:</td>
<td>2 hours 30 minutes 10 minutes</td>
</tr>
<tr>
<td>If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.</td>
<td></td>
</tr>
<tr>
<td>Shelf Life:</td>
<td>36 months, unopened, at 77°F</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>105°F, Seta, mixed</td>
</tr>
<tr>
<td>Reducer/Clean Up:</td>
<td>Reducer #54, R7K54</td>
</tr>
</tbody>
</table>

**Recommended Uses**

- For industrial, commercial, or marine applications where a heavy duty epoxy coating is required.
- Superior resistance to chemicals, moisture, abrasion, and impact
- Meets ADA requirements for slip resistance for floors
- Excellent resistance to alkalies, dilute acids, spillage of solvents, chemicals, jet fuel, grease, etc.
- Clear finish for interior use only

**Performance Characteristics**

- System Tested: (unless otherwise indicated)
  - Substrate: Concrete
  - Surface Preparation: Clean, dry, sound
  - 1 ct. ArmorSeal 1000 HS (reduced)
  - 1 ct. ArmorSeal 1000 HS @ 3.0 - 5.0 mils dft

- Abrasion Resistance:
  - Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load
  - Result: 64.8 mg loss

- Adhesion, over concrete:
  - Method: ASTM D4541
  - Result: 865 psi

- Direct Impact Resistance (steel):
  - Method: ASTM D2794
  - Result: 58 in. lbs

- Dry Heat Resistance:
  - Method: ASTM D2485
  - Result: 180°F

- Flexibility (steel):
  - Method: ASTM D522, 180° bend, 1/8” mandrel
  - Result: Passes

- Pencil Hardness:
  - Method: ASTM D3363
  - Result: HB

- Slip Resistance, Floors:
  - Method: ASTM C1028-96, .60 minimum Static Coefficient of Friction
  - Result: Passes wet and dry, with and without SharkGrip Additive

Epoxy coatings may darken or yellow following application and curing.
**PRODUCT INFORMATION**

<table>
<thead>
<tr>
<th>RECOMMENDED SYSTEMS</th>
<th>SURFACE PREPARATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concrete/Wood:</strong></td>
<td>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.</td>
</tr>
<tr>
<td>1 ct. ArmorSeal 1000HS (reduced 1 pt/gal with R7K54)</td>
<td>Refer to product Application Bulletin for detailed surface preparation information.</td>
</tr>
<tr>
<td>1-2 cts. ArmorSeal 1000HS @ 3.0 - 5.0 mils dft/ct (with anti-slip aggregate if required)</td>
<td>Minimum recommended surface preparation:</td>
</tr>
<tr>
<td><strong>Concrete:</strong></td>
<td>* Iron &amp; Steel: SSPC-SP6</td>
</tr>
<tr>
<td>1 ct. ArmorSeal 33 Epoxy Primer/Sealer @ 8.0 mils dft</td>
<td>Concrete &amp; Masonry: SSPC-SP13/NACE 6</td>
</tr>
<tr>
<td>1-2 cts. ArmorSeal 1000HS @ 3.0 - 5.0 mils dft/ct (with anti-slip aggregate if required)</td>
<td>Wood, interior: Clean, smooth, dust free</td>
</tr>
<tr>
<td><strong>Steel:</strong></td>
<td>* Primer Required</td>
</tr>
<tr>
<td>1 ct. Recocatble Epoxy Primer @ 4.0 - 5.0 mils dft</td>
<td><strong>TINTING</strong></td>
</tr>
<tr>
<td>1-2 cts. ArmorSeal 1000HS @ 3.0 - 5.0 mils dft/ct</td>
<td><strong>APPLICATION CONDITIONS</strong></td>
</tr>
<tr>
<td><strong>Painted Surfaces in Sound Condition:</strong></td>
<td>Temperature: 50°F minimum, 120°F maximum (air, surface, and material)</td>
</tr>
<tr>
<td>1-2 cts. ArmorSeal 1000HS @ 3.0 - 5.0 mils dft/ct</td>
<td>At least 5°F above dew point</td>
</tr>
<tr>
<td></td>
<td>Relative humidity: 85% maximum</td>
</tr>
<tr>
<td><strong>SURFACE PREPARATION</strong></td>
<td>Refer to product Application Bulletin for detailed application information.</td>
</tr>
</tbody>
</table>

**TINTING**

White may be tinted using 844 Colorants at 200% tinting strength, 8 oz per gallon maximum, into Part A. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

**APPLICATION CONDITIONS**

| Temperature: 50°F minimum, 120°F maximum (air, surface, and material) |
| At least 5°F above dew point |
| Relative humidity: 85% maximum |

**ORDERING INFORMATION**

| Packaging: |
| Part A: 1 gallon containers |
| Part B: 1 gallon containers (clear available in 5 gallon containers) |
| Weight per gallon: 12.51 ± 0.2 lb 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.

The systems listed above are representative of the products use, other systems may be appropriate.
The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always use with listed reducer. Any reduction must be compatible with the existing environmental and application conditions.

Reducer/Clean Up
Reducer #54, R7K54

Airless Spray
Pressure ....................... 2500 psi
Hose ............................. 3/8” ID
Tip ................................. .015” - .021”
Filter ............................. 60 mesh
Reduction ..................... As needed up to 10% by volume

Brush
Nylon/Polyester or Natural Bristle
Reduction ..................... As needed up to 10% by volume

Roller
Cover ............................ 3/8” woven with phenolic core
Reduction ..................... As needed up to 10% by volume

If specific application equipment is listed above, equivalent equipment may be substituted.

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.

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. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10. 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.

Poured Concrete
New
For surface preparation, refer to SSPC-SP13/NACE 6. Surfaces 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 6.0 and 10.0. 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.

Always follow the ASTM 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 D4263 Plastic Sheet Method for Checking Moisture in Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete

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.

APPLICATION CONDITIONS

Temperature: 50°F minimum, 120°F maximum (air, surface, and material)
At least 5°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 compatible with the existing environmental and application conditions.

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

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Reduction ..................... As needed up to 10% by volume

Roller
Cover ............................ 3/8” woven with phenolic core
Reduction ..................... As needed up to 10% by volume

If specific application equipment is listed above, equivalent equipment may be substituted.

continued on back
# APPLICATION BULLETIN

## APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with 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.

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

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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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<td>Pot Life: 6 hours 4 hours 2 hours</td>
</tr>
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<td>Sweat-in-Time: 2 hours 30 minutes 10 minutes</td>
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</tbody>
</table>

If maximum recoat time is exceeded, abrade surface before recoating.

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.

Anti-slip additive may be mixed into the final coat just prior to application. Exception: if anti-slip is desired with Clear finish, it should be hand broadcast.

## PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

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.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer #54, R7K54.

Material can not be sprayed if anti-slip aggregate is use.

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.

Prime coat for concrete may be reduced up to 1 pint per gallon.

Clear is for interior use only.

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

## 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.

## SAFETY PRECAUTIONS

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