ARMORSEAL® 33
EPOXY PRIMER/SEALER

Product Description
ARMORSEAL 33 EPOXY PRIMER/SEALER is a low viscosity, high solids, high build, fast cure, epoxy primer designed for use under ArmorSeal 650 or where a high build primer is needed. This primer/sealer enhances adhesion by penetrating into the concrete substrate and helps reduce bubbling and pinholes that may occur when coating porous surfaces with high build coatings.

Product Characteristics
- Finish: Gloss
- Color: Light Gray, Clear
- Volume Solids: 100%, mixed
- VOC (EPA Method 24): <50 g/l; 0.42 lb/gal, mixed
- Mix Ratio: 2 components, premeasured 2.85:1 by volume

Recommended Spreading Rate per coat:

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>7.0 (175)</td>
<td>9.0 (225)</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>7.0 (175)</td>
<td>9.0 (225)</td>
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<tr>
<td>~Coverage sq ft/gal (m²/L)</td>
<td>180 (4.4)</td>
<td>230 (5.6)</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>1604 (39.4)</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Apply by squeegee or roller only.

Drying Schedule @ 8.0 mils wet (200 microns):
- To touch: 4-6 hours
- To recoat: minimum: 6 hours, maximum: 24 hours
- To cure: 7 days

If maximum recoat time is exceeded, abrade surface before topcoating. Drying time is temperature, humidity, and film thickness dependent.

Performance Characteristics
- Abrasion resistant
- Fast dry
- Chemical resistant
- Impact resistant
- Low odor
- 100% solids
- Dry heat resistance: 180°F (82°C)

Recommended Uses
- For use over prepared concrete
- As a high build primer
- Ideal for use on porous concrete or over a rough surface profile
- Use when a pigmented primer is required
- For industrial, commercial, and marine applications
- For use as part of the ArmorQuartz system, a decorative broadcast color quartz system
- Suitable for use in USDA inspected facilities

Test Name | Test Method | Results
---|---|---
Adhesion | ASTM D4541 | 350 psi, 100% Concrete Failure
Compressive Strength | ASTM D695 | ~9,000 psi
Flexural Strength | ASTM D790 | ~6,000 psi
Hardness | ASTM D2240 | 65-75
Tensile Strength | ASTM D638 | ~3,000 psi

Shelf Life: 36 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

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**Product Information**

**Recommended Systems**

<table>
<thead>
<tr>
<th>Dry Film Thickness / ct.</th>
<th>Concrete:</th>
<th>ArmorSeal 33 Epoxy Primer/Sealer</th>
<th>7.0-9.0 (175-225)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 ct.</td>
<td>ArmorSeal 650 SL/RC</td>
<td>10.0 (250)</td>
</tr>
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<th>Concrete:</th>
<th>1 ct.</th>
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<tr>
<td></td>
<td>1 ct.</td>
<td>ArmorSeal 650 SL/RC</td>
<td>30.0 (750)</td>
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<th>Concrete:</th>
<th>1 ct.</th>
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<tr>
<td></td>
<td>1-2 cts.</td>
<td>ArmorSeal 1000 HS Epoxy</td>
<td>3.0-5.0 (75-125)</td>
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<td>1-2 cts.</td>
<td>ArmorSeal HS Polyurethane</td>
<td>2.0-3.0 (50-75)</td>
</tr>
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</table>

**ArmorQuartz System**: 1 ct. | ArmorSeal 33 Epoxy Primer/Sealer | 10.0 (250) |
| Clear, broadcast to excess with color quartz |

| ArmorSeal 33 Epoxy Primer/Sealer | 24.0 (600) |
| Clear, broadcast to excess with color quartz |

| ArmorSeal 650 SL/RC Clear at | 16.0 (400) |
| ArmorSeal 650 SL/RC Clear at | 8.0 (200) |

*Refer to application procedures

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

**Surface Protection**

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 Application Bulletin for detailed surface preparation information.

**Minimum recommended surface preparation**: Concrete & Masonry: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>SSPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>3</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>SP 10</td>
<td>3</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>SP 6</td>
<td>3</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>SP 7</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rusted</td>
<td>D St 2</td>
<td>SP 2</td>
</tr>
<tr>
<td>Powered Tool Cutting</td>
<td>Rusted</td>
<td>D St 3</td>
<td>SP 3</td>
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**Tinting**

Do not tint.

**Application Conditions**

Temperature: 55°F (13°C) minimum, 95°F (35°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) kit contains Part A and Part B

5 gallon (18.9L) mix Part A - 3.7 gal. (14.0L) in a 5 gal. (18.9L) container Part B - 1.3 gal. (4.9L)

Weight: 10.6 ± 0.2 lb/gal ; 1.3 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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**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. 310.2R, 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.

**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**

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**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
- **Squeegee** Flat, rubber
- **Roller** 3/8” woven with solvent resistant core

Refer to Application Procedures for specific directions.

If specific application equipment is not listed above, equivalent equipment may be substituted.
**ARMORSEAL® 33**

**EPOXY PRIMER/SEALER**

**APPLICATION BULLETIN**

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**APPLICATION PROCEDURES**

Surface preparation must be completed as indicated.

Before mixing ArmorSeal 33 it is important that the surface is completely prepared and ready and that all tools and equipment are handy. To mix 1 gallon (3.78L) units: Use electric or air mixer (approximately 250 rpm) with metal mixing blade (Jiffy Model HS or equal). Pre-mix both components. Pour hardener contents into slack-filled resin can and mix for 2 to 3 minutes until material is thoroughly blended. To mix 5 gallon (18.9L) units: Use same procedure as 1 gallon (3.78L) units except a larger blade (Jiffy Model ES or equal) is required. Use low speed when mixing.

Immediately pour entire mixture onto the prepared substrate and spread material using a flat, rubber squeegee using sufficient pressure to work the primer into the porous surface. Immediately backroll the material with a quality 3/8" nap roller leaving 6-10 mils (150-250 microns) on the surface.

The fast set primer can be topcoated in 6 hours at 72°F (22°C). The primer must be tack free before topcoating. If pinholes or porosities are evident after initial cure of primer, repriming may be necessary, especially on very porous concrete.

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

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**NOTE:** Apply by squeegee or roller only.

**Drying Schedule @ 8.0 mils wet (200 microns):**

@ 72°F/22°C

- To touch: 4-6 hours
- To recoat:
  - minimum: 6 hours
  - maximum: 24 hours
- To cure: 7 days

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

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

**Pot Life:** 30 minutes

**Sweat-in-Time:** None required

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

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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.

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

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