

ShieldSys™ 225 Anti-Corrosion Protective Coating

Description

Miller-Stephenson has developed a next-generation anti-corrosion protective coating in an ultra-low VOC, water-based formulation. ShieldSys™ 225 is a high advanced coating that generates an ultra-durable, thin-coating on any metallic surface, yielding long-term corrosion protection on both outdoor and indoor substrates. Properly applied this coating provides unmatched protection and barrier properties against moisture, salt spray, acid / alkali fumes, and other corrosive elements. Formulated to be applied Direct-To-Metal (DTM), ShieldSys™ 225 provides protection both from flash rust immediately, and once fully cured, provides long-term corrosion protection. In addition, it does not attract dust, dirt, or grime as the coating cures to a clear, hard coating. ShieldSys™ 225 is not affected by UV light.

- Exception durability and surface adhesion
- Hard, Dry, and Translucent coating
- Direct-to-Metal formulated; No Primer needed
- Protects against flash rust and longer-term corrosion
- Low VOC and Odor
- Water-based formulation

Applications

- Protective Coating for all metallic surfaces
- Aircraft Fuselages, Bare metal, Cargo sections, Metal Parts and Machinery, Overseas storage or shipments
- Short-term or Long-term Rust Protection
- Long-term corrosion protection
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Recommended Application Procedure

1. Clean surface thoroughly. Mechanical cleaning such as bead media blasting or steel wool, followed by chemical cleaning, provides the best surface for application of ShieldSys™ 225. Removal of all previous contaminants is critical.
2. **Mix product thoroughly before use and intermittent during use to maintain uniformity.**
3. Concentrate: ShieldSys™ 225 is a concentrated product which can be used as is or diluted to lower concentrations. The undiluted product is ideally applied via brush, roller or via HVLP gun.
 - a. Application should be of thin coats. Allowing each coat to cure completely before reapplication. High quality synthetic brushes are recommended.
4. **Thick coats will cause “mud cracking” and loss of surface adhesion resulting in poor cure film properties and poor corrosion characteristics.**

5. The concentrate product will dry at room temperature rapidly, typically taking 10-30 minutes depending on ambient temperatures. The coating then needs to be heat cured at 200-300°F for 1-1.5 hours to develop its final film properties or left for 24 hrs at room temperature. Exposure to UV light will accelerated cure times at room temperature.

Note: If product is room temperature cured, some final film properties (scratch & impact resistance) may only be reached 2 – 7 days after application. This will vary based on application technique and ambient humidity levels.

6. Dilution: The product can be diluted 5:1 (5 parts ShieldSys™ 225 to 1 part DI water) with DI water to decrease viscosity, aid with spraying or to decrease film build. Dilution will increase dry times at room temperature.
7. The diluted product can be applied to heated surfaces to decrease dry times. To reach final cure properties the dried coating must be heat cured at ≥200°F for one hour or allowed to cure for 24hrs at room temperature.

Physical Properties:

Primary Polymer:.....Proprietary Resin
Appearance:.....White / Off-white
Odor:.....Slight
VOC.....126 g / L
Specific Gravity:.....0.91 g/mL @ 25°C

Shelf-Life

ShieldSys™ 225 has a shelf life of 12 months from the date of shipment.

ReleaSys™ Product Line:

Miller-Stephenson offers a selection of high performance, industrial coatings designed to provide unmatched effectiveness and efficiency in your process. All variants of the ShieldSys™ Series will deliver higher productivity, lower rejection rates, and higher quality products.

Safety Data Sheet (SDS) is available upon request.

1668-12M

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