

SYGEN 200

Technical Data Sheet



MATERIAL DESCRIPTION

Atlas SyGen 200 is a high performance synthetic barrier system engineered to provide excellent protection against attacks caused by immersion in aqueous solutions. SyGen 200 is engineered to have tenacious adhesion to most cementitious, ferrous and non-ferrous substrates. Atlas SyGen 200 is USDA approved for incidental contact with food.

INTENDED USES

- Submersible Pumps
- Secondary Containment Areas
- Cooling Tower Cold Deck
- Floors
- Water boxes
- Heat Exchangers
- Manholes
- Buried or immersed structures

STORAGE AND TECHNICAL INFORMATION

Unit Size 0.75 Gallons
 Shelf Life 3 Years when stored between 20 °F and 86 °F
 Application Temperature (Ambient) 40 °F - 95 °F (Ambient)
 Mixing Ratio (Volume) 3 Parts Base to 1 Part Hardener
 Coverage Rate @ 10 mil 120 ft² per unit
 Volume Capacity 173 in³ per unit
 VOC 0.0 Lbs/Gal; 0.0 g/L
 Viscosity (cP) 500-800
 Available Colors Tan & Gray (Custom Color Available)

PRODUCT PERFORMANCE

| | | |
|-----------------------|------------------------------|--------------|
| Heat Resistance: | 300 °F Dry / 150 °F Immersed | NACE TM 0174 |
| Compressive Strength: | 12,000 | ASTM D695 |
| Tensile Strength: | 3,350 | ASTM D638 |
| Flexural Strength: | 4,050 | ASTM D790 |
| Hardness: | 78 Shore D | ASTM D2240 |
| Impact Resistance: | 2.65 ft-lb/in | ASTM D4226 |
| Elongation at break: | 20.00% | ASTM D 638 |

CURE SCHEDULE

| Service / Temperature | 50 °F | 68 °F | 77 °F | 86 °F | 90 °F |
|--------------------------------|---------|---------|---------|---------|---------|
| Pot Life | 40 mins | 32 mins | 20 mins | 16 mins | 10 mins |
| Light Traffic | 2 days | 24 hrs | 16 hrs | 14 hrs | 10 hrs |
| Heavy Traffic | 14 days | 5 days | 2 days | 2 days | 1 day |
| Full Cure (Chemical Immersion) | 21 days | 6 days | 5 days | 5 days | 4 days |

CHEMICAL RESISTANCE

***EX = 30 Days @ 72°F**

| | | | | | |
|-----------------------|-----|---------------------|-----|-----------|-----|
| 10% Sulfuric Acid | Ex* | 10% Phosphoric Acid | Ex* | Ethanol | Ex* |
| Gasoline | Ex* | 25% Ammonia | Ex* | Skydrol | Ex* |
| 20% Hydrochloric Acid | Ex* | Sea Water | Ex* | Crude Oil | Ex* |
| Athyl Acetate | Ex* | Diesel Fuel | Ex* | Toluene | Ex* |

TECHNICAL SUPPORT

Atlas SyGen 200 is backed with technical support from staff engineers, certified coatings inspectors, research laboratories and personnel 24 hours a day 7 days a week.
Call (786) 312-1231

MADE IN THE USA

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Material Application Guidelines



ATLAS
POLYMERS



SURFACE PREPARATION

Surfaces to which Atlas SyGen 200 is to be applied must be clean firm and dry. Any contamination such as rust, mill scale, dust, oils, grease, fats, waxes, laitance and other coatings/sealers must be removed and or washed prior to the application of this material.

- Surfaces should be abraded through mechanical means to provide a surface profile of CSP-3 to 5 for concrete and NACE No. 2 / SSPC-SP 10 for metals. Metallic substrates should also have a surface profile of at least 3 mils. The surface roughness of a 3 mil profile is equal to 60-grit sandpaper or coarser.
- New concrete must cure for a minimum of 28 days and have a vapor transmission rate of no more than 3 pounds per 1,000 ft² over a 24 hour period. This could be confirmed through a calcium chloride test as per ASTM E-1907.
- Concrete that has been contaminated with chemicals or other foreign matter must be neutralized to a neutral pH prior to the application of this material. Neutralization should be carried out by rinsing the contaminated concrete with water and either baking soda or ammonia.
- Please note that any surface irregularities should be properly addressed prior to the application of this material. Also, please note that waxes, oils or greases should be removed with water and soap. Solvent such as acetone or MEK will not remove them.



CLEAN-UP AND CONSIDERATIONS

Clean Atlas SyGen 200 from tools with isopropyl alcohol, acetone or mineral spirits. This should only be done before it has hardened. Once hard, it can only be removed through mechanical abrasion or grit-blasting.

Once fully cured SyGen 200 may be cleaned with most commercial and industrial cleaners. Always rinse with clean water after cleaning. Aggressive cleaning chemicals should not be left standing over for longer than 3 hours.



SAFETY & WARRANTY

Atlas SyGen 200 is an epoxy resin system. Please refer to the Material Safety Data Sheets prior to using this product. Do not weld on or near the Hardener epoxy, hazardous fumes will be released.



MIXING

1. Pre-mix the Base and Hardener separately to ensure that any settled solids are properly dispersed.
2. Pour the contents of the Hardener into the Base and mix until color is uniform and free of any streaks.
3. Pour contents into a clean container and mix again.
4. Using a Jiffy style mixer is recommended for mixing large quantities.
5. Mixing at temperatures below 41 °F may be difficult. It is recommended that the Base and Hardener be heated to a temperature between 68 °F and 77 °F in a hot water bath prior to mixing in order to ease the mixing process.
6. Ensure correct mixing. Poor mixing will result in soft spots, poor curing and loss of physical properties.



APPLICATION

1. Atlas SyGen 200 may be applied with a brush, roller (3/8" nap), squeegee or airless sprayer. Recommended spray equipment is a 68:1 airless sprayer with reverse-a-clean tips, orifice size of 0.017" – 0.023". Trace heated lines should also be used with this equipment setup.
2. Apply SyGen 200 at a thickness of 10 ± 2 mil.
3. Multiple coats can be applied within 4 hours of the previous coat @ 75 °F. Maximum recoat @ 75 °F is 48 hours.
4. Although Atlas SyGen 200 can be applied in a single coat, it is strongly recommended to apply it in two 10 mil coats to prevent the formation of film discontinuities known as pin-holes.
5. *Optional: For a slip resistance finish, add fine sand or Atlas AG01 aggregate to rejection after the first coat. Allow 12 hours to harden, brush and blow all loose aggregate off and apply second coat as in step 2 above.*

Atlas Polymers, Corp. guarantees this product will meet the performance claims stated herein when material is stored and used as instructed in this document. Atlas Polymers further guarantees that all its products are carefully manufactured to ensure the highest quality possible and tested strictly in accordance with universally recognized standards. Since Atlas Polymers has no control over the use of the product described herein, no warranty for any application can be given.

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