



# CHEM-SENTRY® TR356

## Chemical Resistant Liner and Coating

### 1.01 DESCRIPTION

Chem-Sentry® TR356 is a multi functional, phenol-novolac resin which is extremely chemical resistant with a high heat deflection temperature. Chem-Sentry® TR356 is a thick film novolac lining designed to cure at ambient temperature to provide exceptional corrosion protection for surfaces in severe chemical and physical environments. Please use the correct product grade that complies with VOC regulations as per federal, state, statutory bodies, county and city regulations/codes at the place of installation of product.

### 1.02 FEATURES

- Acid-Based Chemical Resistant
- Corrosion Protection
- Extremely Hard & Tough
- Heavy-Duty Chemical Resistant Protective Lining
- Solvent-Based Chemical Resistance

### 1.03 USES

- Containment Wall & Floors
- Crude & Storage Tanks
- Food Processing Facilities
- Internal Tank & Pipe Lining Systems
- Mining & Milling Industries
- Petrochemical Plants
- Power Generating Plants
- Pulp & Paper Industry
- Steel Structures & Bridges
- Water & Wastewater Treatment Plants

Chem-Sentry® TR356 is used as a heavy-duty chemical resistant protective lining and will provide a high degree of protection against corrosive moisture, fumes, carbon dioxide, hydrogen sulfide, methane gases, industrial water and wastewater solutions containing salts, detergents, many acids, alkalis, and other chemicals. Chem-Sentry® TR356 is also resistant to petroleum products such as kerosene, diesel, gasoline, aviation fuels, motor oils, lubrication materials, greases, hydraulic fluids, alcohols, aliphatic and aromatic hydrocarbon solvents.

### 1.04 COLOR

Grey with a High Gloss

Finish may vary due to texture and porosity of substrate. Chalking will occur with extended exposure to sunlight. Subject to color change.

### 1.05 PACKAGING

1-gallon kit: 1 gallon can (net 0.75 gallon, 2.83 liters) of Side-A and 1 quart can (net 0.25 gallon, 0.94 liters) of Side-B  
4-gallon kit: 5 gallon pail (net 3 gallons or 11.35 liters) of Side-A and 1 gallon can (net 1 gallon or 3.78 liters) of Side-B

### 1.06 MIXING

The volume mixing ratio: 3A:1B. Chem-Sentry® TR356 may not be diluted under any circumstances. Add Chem-Sentry® TR356 Side-A

### TECHNICAL DATA (Based on draw down films)

Mix Ratio by Volume	3A : 1B
Theoretical Coverage Rate	1 gallon/100-150 sqft (0.30 - 0.4 liters/sqm)
Total Solids by Weight, ASTM D-2369	100%
Pot Life at 75°F (24°C), 50% R.H.	30-45 minutes
Dry Film Thickness per Coat	5 ± 1 mils (127 ± 25 microns)
Hardness, ASTM D-2240 Shore D	80 ± 5
Specific Gravity	A-Side: 1.17 ± 0.1 B-Side: 1.5 ± 0.1
Solids by Weight ASTM D-2369	100 ± 2%
Solids by Volume ASTM D-2369	100 ± 2%
Volatile Organic Compounds, ASTM D-2369-81	0.0 lbs/gal (0 gm/liter)

into Side-B. Power stir product until completely mixed and uniform color appears, approximately 2-3 minutes.

### 1.07 COVERAGE

Chem-Sentry® TR356 may be applied at any rate to achieve desired thickness. Theoretical coverage per gallon is 1600 sqft at 1 mil (25.4 microns).

### 1.08 SURFACE PREPARATION

In general, coating performance is directly proportional to surface preparation. All surfaces must be clean, dry and free of oil, grease, wax, dirt, chalk, salts and other contaminants. Round off sharp edges and rough welds. Burrs and weld spatter should be completely removed.

Carbon Steel: Use SSSP Guidelines for surface preparation. Metal surfaces should have an anchor profile of 3 mils (0.003) or more. If the metal substrate has "cavities" or "indentations" apply a primer application coat and back roll to completely wet and thoroughly penetrate the surface. Make sure all voids and irregularities are filled.

For Internal Linings: Abrasive blast to SSSP-SP-5 (white metal) to achieve a surface anchor profile of 22-3 mils.

For Exterior Use: Abrasive blast to SSSP-SP-10 (near white) to achieve a surface anchor profile of 12-2 mils (304-608 microns). After abrasive blasting, remove all dust or other contaminants by vacuum or dry air blow-down. NOTE: Abrasive blasted metal surfaces must be primed as soon as possible, do not allow to remain overnight. If flash rusting occurs it must be removed.

Concrete and Masonry: Allow new concrete and masonry to cure at least 28 days. Surface and substrate must be dry and clean. Clean and open surfaces by dry abrasive "brush-off" blast. All concrete laitance should be removed. "Blow" holes and cavities should be opened in order to properly fill and seal. Level protrusions and repair cavities, voids, and cracks. Apply primer application coat and back roll to completely wet and thoroughly penetrate the surface to ensure that all irregularities are filled and sealed.

Remove all contaminants and deteriorated concrete. Brush blast to achieve roughed surface sufficient to remove laitance or surface hard-face. Vacuum all concrete surfaces prior to application of primer. All cracks, rock pockets and voids must be filled with non-shrink grout, and sanded. Concrete must be free of puddled water or moisture.

## APPLICATION

### 2.01 APPLICATION BASICS

Applied over Carbon steel or concrete:

Surface Preparation Method:

Carbon Steel: SSSP-SP-10, 5 or SP-12 (WJ-4)

Application temperature for Chem-Sentry® TR356 should be between 50-110°F (air and surfaces). Do not apply product unless temperature is at least 5°F (3°C) above the dew point. Re-coat schedule is approximately 2-8 hours at 70°F (21°C) dependent on the environment. See Specification Specifications for recoating guidelines and additional information.

Airless: Use a Graco 68:1 pump or higher and using a 206-718 gun with a fluid tip of .019" (.05 cm) or larger orifice size with "Reverse-A-Clean" tip, a 3/8" (0.96 cm) I.D. or larger high-pressure solvent resistant fluid line and a 1/2" (127 cm) I.D. or larger air supply line. Make sure you pump is capable of a continuous air source capable of 80 to 100 psi inbound pressure at pump. Equipment of equal performance is acceptable.

Conventional Spray: Variations of conventional production spray equipment such as pressure pot, air assisted airless or high volume, low pressure systems as supplied by Binks, Graco, Nordson, Devilbiss or equal may be used.

Brush: Use solvent resistant short hair or natural bristle brush.

Roller: Use short nap synthetic covers for back rolling. Ribbed metal roller.

### 2.03 EQUIPMENT CLEANUP

Equipment should be cleaned with an environmentally-safe solvent, as permitted under local regulations, immediately after use.

### 2.04 SHELF LIFE AND STORAGE

Chem-Sentry® TR356 has a shelf life of 12 months from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

### 2.05 LIMITATIONS

The uncured materials used in Chem-Sentry® TR356 are very sensitive to heat and moisture. Higher temperature and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application. Low temperature and/or low humidity extends the cure time and the use of accelerators may be necessary. Inspect the installed work of other trades and verify that all such work is complete so that Chem-Sentry® TR356 may be installed. All surfaces to receive Chem-Sentry® TR356 must meet all applicable building and safety codes in the prescribed city, county or state, whichever has jurisdiction. The substrate must be structurally sound and sloped for proper drainage. No liability is assumed by PSI for substrate defects and for improper surface preparation and application. Chem-Sentry® TR356 must cure at least 24 hours at 75°F (24°C) and 50% relative humidity before any immersion services. Cure time may be longer at lower temperature. Do not open until ready to use. No liability is assumed by PSI for substrate defects and/or improper substrate preparation and application.

**WARNING: This product contains epoxy resin and curatives.**

Please read all information in the General & Safety Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with the PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

#### LIMITED WARRANTY

PSI warrants its products to be free of manufacturing defects and that they will meet PSI current published physical and chemical properties. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PSI of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PSI shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. PSI shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PSI reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

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