

PSC 105x TankCoat FR

PSC 105x TankCoat FR is a proprietary, high performance, fire resistant acrylic elastomeric coating. It is liquid applied, specifically formulated for protecting sprayed-in-place polyurethane foam coated structures and encapsulation of fibrous asbestos insulation. When applied as directed, PSC 105x FR bridges minor surface imperfections, hairline cracks, providing outstanding durability and long lasting protection. PSC 1050x TankCoat FR has superior aging characteristics eliminating the causes of ruptures, cracks and delaminating while providing a class "A" fire resistance rating with a flame spread classification (FSC) of 10 and a smoke density classification (SD) of 5.

The molecular structure of PSC 105x TankCoat FR is perfectly adjusted to allow it to utilize its tensile strength and elongation properties for maximum, durable and long lasting protection. It withstands substrate movement and accommodates rapid changes in the temperature while maintaining its flexibility and elongation properties.

PSC 105x TankCoat FR meets the requirements of the Canadian General Standards Board standard of 1GP-205M.

Uses

- For protection against UV radiation of urethane foam insulated oil tanks.
- For protection against leakage and moisture intrusion of urethane foam insulated oil tanks.
- For sealing and encapsulation of asbestos fiber releasing materials.

Advantages

- High performance, best hiding power and coverage in the industry.
- Due to excellent tensile strength and elongation properties, reduces the thermal shock of the coating related to freeze/thaw conditions. Maintains flexibility through the year.
- Water and UV radiation resistant, fade resistant.
- Seamless, tough, rubbery coating seals and waterproofs hairline cracks.
- Inhibits the growth of mildew, fungus, moss and algae.
- Best fire resistance classification in the industry, rating 10.
- Lowest smoke density classification in the industry, rating 5. (Actual rating 3, rounded up to 5)
- Non-flammable.
- Allows the substrate to breathe.
- Resists aggressive atmospheric conditions; exhaust gases, acid rain, airborne pollutants.
- Custom colors available.

PSC 105x TankCoat FR is designed to

- Form a fire resistant surface on the substrates it's applied to.
- Seal and encapsulate asbestos fiber releasing materials.
- Protect the structures it's applied to from deterioration caused by ingress of water, acid rain and other airborne pollutants.
- Reduce maintenance costs associated with unprotected urethane foam insulation.
- Prolong the life of urethane foam insulation.

How does PSC 105x TankCoat FR perform?

- It bonds to the substrate becoming an integral part of it.
- It prevents the release of fibers from friable asbestos containing surfaces.
- It is liquid applied to form a seamless, protective barrier.
- Fire resistant PSC 105x TankCoat FR creates a durable, fire resistant surface, classified the best in the industry, rating 10.
- Optimum tensile strength and elongation properties allow it to expand and contract with freeze/thaw conditions while bridging hairline cracks in the substrate up to 1/16".
- System is sustainable for the life of the substrate.

General Data

-	Type	Acrylic elastomeric
-	Solids	55 to 65 % (depending on color)
-	Coverage	Look under System Components
-	Film thickness	Look under System Components
-	Viscosity	20,000 CPS @ 6 rpm. (Brookfield, 20 C)
-	VOC	Less than 30 g/L.
-	Flash point	N/A
-	Thinner	Do not thin.
-	Water vapor transmission	2.9 perms @ 12 mils DFT (ASTM E96-80BW) 53 perms @ 3 mils DFT.
-	Tensile strength	130 psi. @ WFT 13 mils (ASTM D412)
-	Elongation	310 % (ASTM D412)
-	Fire resistance rating	10 (ASTM E84-01)
-	Smoke density	5 (ASTM E84-01)
-	Finish	Flat
-	Surface temperature at application	Minimum 5 C (41 F) Maximum 35 C (90 F)
-	Number of coats	Two coats over prime coat (if required)
-	Storage temperature out of sunlight	Minimum 5 C (41 F) Maximum 40 C (105 F)

Drying time

Coating applied @ 24 mils WFT Relative humidity 50 %	Substrate Temperature	Re-coat after	Full cure
	5 C (41 F)	24 hours	72 hours
	10 C (50 F)	18 hours	72 hours
	20 C (68 F)	9 hours	48 hours
	30 C (86 F)	3 hours	24 hours

Limitations

- Do not apply PSC 105x TankCoat FR in temperatures below 5 C (41 F) or above 35 C (95F).
- Do not apply PSC 105x TankCoat FR if precipitation or freezing temperatures are to be expected before full cure is achieved.
- The maximum operating temperature for the product is 120 C (250 F).
- The minimum operating temperature for the product is -50 C (-58 F).

System components for urethane foam coated structures

- Primer; self priming.
- Basecoat; apply at 24 mils, 60 to 65 SQ. FT. per USG (1.6 sq. m per liter).
- Topcoat; apply at 16 mils, 100 SQ. FT. per USG (2.4 sq. m per liter).

Surface preparation for urethane foam coated structures

New surface (shop application). Surfaces must be structurally sound, free of dirt, dust, oil, grease and loose particles. Remove any surface contaminants by power washing. Allow wet surfaces to dry prior to applying TankCoat FR.

Field applications and repairs. Remove all dirt, dust, oil, grease and deteriorated coatings by power washing. Rinse of any detergents. Allow wet surfaces to dry. Any cracks and holes should be treated as with new construction.

System components for encapsulation of asbestos fiber releasing materials

- Primer; self priming. Apply a thin coat at 6 to 7 mils WFT, approximately 200 SQ. FT. per USG (5 sq. m per liter) to seal and bond loose material.
- Basecoat; after 3 to 4 hours, apply the basecoat at 24 mils WFT, approximately 60 to 65 SQ. FT. per USG (1.6 sq. m per liter).
- Topcoat; within the recoat window, apply the topcoat at 16 mils WFT, approximately 100 SQ. FT. per USG (2.4 sq. m per liter).

Surface preparation for encapsulation of asbestos fiber releasing materials

Surfaces must be structurally sound, free of dirt, dust oil, grease and loose particles. Remove any surface contaminants by power washing at a minimum pressure of 2700 psi. Allow the surfaces to dry.

Flashing details and moving joints for encapsulation of asbestos fiber releasing materials.

Flash all penetrations through the ceiling and roof using TankCoat FR at wet film thickness of approximately 25 mils. Immediately embed and brush in 6" (15 cm) or 12" (30 cm) wide reinforcing fabric (PSC 4330) ensuring that the fabric is not stretched and wrinkle free. Cut of all fish mouths. Apply a second coat of TankCoat FR at 25 mils.

Perform this same procedure on all moving joints, cracks and holes wider than 1/16". For larger holes in the wall or ceiling, place a piece of drywall behind the asbestos sheet, attach it with screws through the asbestos and fill the hole with PSC 260x PolyRock or a piece of drywall of the same thickness than the asbestos sheet and repeat the above procedure.

Application for both above systems

Apply as received in the container. Do not add other paints or solvents. Do not thin. Stir the product thoroughly prior to use. Avoid entrapping excessive quantities of air when stirring. TankCoat FR can be applied by airless spray, power roller and conventional roller. Do not apply when air and substrate temperatures are below 5 C (41 F), nor in damp or rainy weather.

Apply a liberal coat and check application with a wet film gauge to ensure minimum wet film thickness is obtained. Work well into possible crevices and holes for adequate penetration and sealing. Backroll in downward motion to ensure a uniform finish with the stipple in one direction. Apply topcoat within re-coat window.

Power roller

Apply generously, monitoring application frequently with a wet film thickness gauge to ensure proper wet film thickness.

Conventional roller

Apply in two crosshatch coats at 90 degrees to each other, monitoring application frequently with a wet film thickness gauge to ensure proper wet film thickness. Keep roller saturated with material at all times. Allow the basecoat to dry 9 hours @ 20 C (68 F) or until its no longer tacky, before applying the topcoat. Finish off with dry roller in one direction to ensure uniform finish.

Airless spray

Apply generously in a cross hatch pattern and backroll to achieve a pinhole free surface. Monitor application frequently with a wet film thickness gauge to ensure proper wet film thickness. Coverage will vary according to surface texture and profile. Use equipment capable maintaining 2,500 to 2,700 psi. at the tip. Orifice size: 0.019" (0.48 mm) to 0.023" (0.58 mm).

Cleanup

Wash all equipment with warm detergent solution and rinse thoroughly with clean water. Spray equipment should be given a final rinse with mineral spirits to prevent rusting.

Use completely and dispose properly. Dry, empty containers may be recycled in a can recycling program. Local disposal requirements vary; consult your sanitation department or local environmental agencies for more information on disposal options.

Safety precautions

Prior to handling this product, consult Material Safety Data Sheets (MSDS) for detailed information.

Minimum precautions. Keep out of reach of children. Wear protective gloves and goggles. Avoid skin and eye contact. In case of skin contact, wash thoroughly with soap and lukewarm water. In case of eye contact, flush with water for at least 15 minutes and seek immediate medical attention. A dust/particulate respirator approved by NIOSH should be worn when spraying. Close container after each use.

In case of spill

Absorb with inert material and dispose off as specified under Cleanup.

Shelf life

PSC 105x TankCoat FR has a shelf life of 1 (one) year in an unopened container.

Warranty Disclaimer

We guarantee our Products to conform to the specifications of Polymer Science Corporation. Polymer Science Corporation makes no warranty or guarantee, express or implied, including warranties of fitness for a particular purpose or merchantability, respecting its Products. Liability, if any, is limited to refund of purchase price or replacement of the Product. All consequential damages, labor and cost of labor are hereby excluded.

For orders and inquiries from Canada, US and Mexico, call toll free 1-866-793-3503, or fax your orders to PSC's customer service at 403-287-2766.

Polymer Science Corporation develops, manufacturers, and distributes specialty chemicals, industrial and architectural coatings of highest quality.