TL-250
Glass Flake Filled, Vinyl Ester Tank Lining System

PRODUCT DESCRIPTION

TL-250 is a Vinyl Ester Tank Lining system based on a glass flake filled, trowel-on base coat and a spray applied glass flake filled vinyl ester top coat. The system is typically applied at a finished thickness of 50 – 70 mils. TL-250 is suitable for **FDA** tank lining applications. We use the highest quality resins manufactured to exacting specifications to ensure maximum chemical resistance for reliable barrier protection. Our glass flake is specially treated for maximum integration into the resin system resulting in low permeability ratings that rival any other products on the market.

TYPICAL USES

Linings for steel and concrete tanks used for a wide variety of food processing, chemical processing, chemical storage, and wastewater applications. Lining of stock chests, bleach towers, FGD tank linings and Ductwork.

APPLICATION METHODS

Basecoat :	Trowel
Topcoat :	Spray or roller

SYSTEM SUMMARY
PRIMERS

Steel:	Blome Primer 205
Concrete:	Blome Primer 205
Surfacing and coving materials:	Blome CP-100
Typical recommended thickness:	Basecoat trowel applied 35-45 mils
	Topcoat spray/roller applied 20-25 mils

ENVIRONMENTAL CONDITIONS

Work area must be dry. Monitor weather conditions and dew point. Stop the application if the temperature falls within 5°F of the dew point. Use dehumidification and/or temperature controls if necessary to meet this requirement. Always use forced ventilation while applying this material and for its entire cure cycle.

TECHNICAL DATA
TL-250 TROWEL/SPRAY LINING SYSTEM

Volume solids 83 ± 2% mixed

CURE TIME	TEMP	POT LIFE	TO RE-COAT	SERVICE
	75F	35-45 minutes	Min 5 hrs, Max 7 days	48hrs
	50F	45-60 minutes	Min 12 hrs, Max 7 days	72hrs

Curing time varies with temperature, air movement, humidity and lining thickness.

TYPICAL PROPERTIES

PROPERTY	**TEST METHOD**	**RESULTS**
Shore D Hardness	ASTM D-2240	80-85
Tensile Strength	ASTM D-638	3,100 – 3,500 psi
Tensile Elongation	ASTM D-638	0.3 – 0.5%
Flexural Strength	ASTM D- 790	6,500-7,000 psi
Bond Strength	ASTM D-4541	Steel: 1,400 – 1,700 psi Concrete: Concrete Failure
HDT	ASTM D-648	225F
Water Vapor Transmission	ASTM E-96	Permeability (perm-inch) 0.0008
Solvent Extraction Test	21 CFR 177. 2420	Passes for FDA applications

Theoretical Coverage 1331 mil sq ft/gal
Color: off white/gray
Storage Conditions: Min. 45°F Max 75°F
Shelf Life: 3 months
Packaging: 1 gallon units, 5 gallon units and drums
Weight per gallon: 10. 2 lbs.

JOBSITE ENVIRONMENTAL CONDITIONS

The temperature of the surface to be coated and the ambient air temperature must be at least 50°F while applying this product and as it cures.

Monitor weather conditions and dew point. Stop the application if the temperature falls within 5°F of the dew point.

Use dehumidification and/or temperature control if necessary to meet this requirement.

All surfaces to be lined must be free of all dirt, oil, grease, chemical contamination, salts, incompatible coatings and other deleterious substances.

JOBSITE STORAGE OF MATERIALS

Proper storage of these materials is critical to handling characteristics and performance.

Store all components in unopen containers in a dry place, at 50°-75°F, out of direct sunlight, and protect from the elements. Keep away from heat and flame.

24 hours before use, narrow the temperature of the storage conditions to 70°-80°F to facilitate handling and of the product.

SURFACE PREPARATION STEEL

Steel surfaces intended for lining application must be clean and free of oil, grease, dirt, rust, mill scale, salts, other coatings, corrosion products and other deleterious substances.

Welds and weld splatter must be ground smooth. Avoid skip welds. Grind all sharp projections and round all corners to a 1/8" radius.

All steel to be lining must be abrasive blasted to a White Metal Finish (NACE No1, SSPC SP5) with a 2-4 mil sharp anchor profile.

Mask all areas that are not to be lined.

CONCRETE

New concrete must cure a minimum of 28 days. Concrete surfaces should be abrasive blasted to provide a sound surface with a texture similar to medium grit sandpaper. Surfaces must be dry. All voids, pits, rock pockets, and honeycombed surfaces should be filled with Blome Primer 205 filled with #410 powder prior to application of TL-250 Priming.

Mix and apply primer by brush, roller or spray. Apply at 6-8 mils. Do not allow primer to puddle. Coverage rate should be 200 – 250 square feet per gallon. Allow primer to cure tack free before proceeding with application of TL-250.

When priming concrete, it is important to apply the primer when ambient and substrate temperatures are declining. Apply sufficient amount of primer to seal the surface of the concrete without creating puddles. This may require more than one coat of primer depending on the porosity of the concrete. If more than one coat is necessary, allow each coat to cure tack free before applying the next coat.

After the last coat of primer has cured tack free, fill any voids in the concrete surface using Blome Primer 205 filled with #410 powder and allow to cure tack free before proceeding with application of TL-250.

MIXING AND APPLICATION OF TROWELABLE BASECOAT

1. Stir Part A to a smooth, uniform consistency and color using a Jiffy type mixer.
2. For every gallon of Part A, add 2-4 ounces of Part B (catalyst), and mix thoroughly for 2-3minutes.

3. Be sure to scrape the sides and bottom of the mixing pail to ensure thorough mixing.
4. Pot life of the mixture using 2 ounces of Part B will be approximately 30-40 minutes at 75°F (significantly less at elevated temperatures).
5. The longer the material is in the pail after mixing, the shorter the pot-life will be…USE IMMEDIATELY.
6. Apply a 30-40 mil basecoat using a trowel. Before the basecoat cures, dampen a short nap roller with styrene and roll the surface of the fresh coating to orient the glass flakes parallel to the substrate. Allow to cure tack free before applying the topcoat.
7. Before applying the topcoat, closely inspect the basecoat to ensure that there are no soft, uncured spots. If there are uncured spots, remove by scrapping and solvent wiping and reapply the TL-250 to the area to be repaired. Sand or grind down any sharp protrusions.

APPLICATION EQUIPMENT FOR PLURAL COMPONENT SPRAY (TOPCOAT ONLY)

Use air assist Binks 37:1 ratio B8-DSQ cart mounted Super Slave spray unit with air controls, 7-1/2 S.S. hopper with cover and quick disconnect, SQ S.S. line filter, 50' resin, catalyst and air hose assembly, swivel, Century Gun with T.C. Seat, needle and tip.
Premix Part A resin immediately before use using a Jiffy type mixer to ensure that settling of the fillers has not occurred during shipping and storage.
Use spray equipment in accordance with equipment manufacturer instructions.

MIXING AND APPLICATION OF TOPCOAT

Stir Part A to a smooth, uniform consistency and color using a Jiffy type mixer.
Pour 2-4 ounces of Part B (catalyst) into the container holding Part A, and mix thoroughly for 2-minutes.
Pot life of the mixture using 2 ounces of Part B will be approximately 45-60 minutes at 75°F (significantly less at elevated temperatures).
The longer the material is in the pail after mixing, the shorter the pot-life will be…USE IMMEDIATELY.
Single component
spray
Conventional or airless spray equipment can be used to apply TL-250 Topcoat material. Conventional standard air spray gun, with pressure pot or low ratio pump, and a minimum .070" fluid nozzle is recommended. If airless equipment is used, a minimum 30:1 ratio pump is required. The gun should have a reversible "self cleaning" tip with a .035" orifice or larger, tungsten carbide nozzle.

INSPECTING FOR PINHOLES

Spark test cured lining at 100 volts per mil. Mark all pinholes and repair using the following touch-up procedure. Retest only the areas that have been repaired.

TOUCH-UP OR RECOATING

Allow material to cure firm to the touch. If surface is not contaminated and has not cured beyond 72 hours at an average temperature of 75F, no intercoat prep is required. If surface has been exposed to contamination or has cured beyond 72 hours or has been exposed to direct sunlight for over 24 hours do the following: Remove any contamination and mechanically abrade. Apply lining material and allow to cure.

CLEANUP

Clean tools and equipment with nonflammable chlorinated solvents before material begins to set.

SAFETY PRECAUTIONS

The various components of TL-250 products present health and safety hazards if they are handled improperly. Do not store, mix or use near open flame, sparks or heat source. Keep all containers closed when not in use. Always wear safety glasses, proper respirator, protective clothing and rubber gloves while mixing or applying these products. Refer to Material Safety Data Sheet prior to using these products.

WARRANTY

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. Our material data sheets and other literature are to be considered accurate and reliable, but are used as guides only. WE GIVE NO WARRANTY OR GUARANTEE, WHETHER OF MERCHANTABILITY OR FITNESS OF PURPOSE OR OTHERWISE, AND WE ASSUME NO LIABILITY IN CONNECTION THEREWITH. We are happy to give suggestions for applications; however, the user assumes all risks and liabilities in connection therewith regardless of any suggestion, we may give. We assume no liability for consequential or incidental damages. Our liability, in law and equity, shall be expressly limited to the replacement of non-conforming goods at our factory, or at our sole option, to repayment of the purchase price of the non-conforming goods.

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