

## **TL-250AR**

### **Abrasion Resistant, Glass Flake Filled, Vinyl Ester Tank Lining System**

#### **PRODUCT DESCRIPTION**

TL-250AR is a Vinyl Ester Tank Lining system based on a glass flake filled, trowel-on base coat and a spray applied, abrasion resistant, vinyl ester top coat. The system is typically applied at a finished thickness of 50 – 80 mils. We use the highest quality resins manufactured to exacting specifications to ensure maximum chemical resistance for reliable barrier protection. TL-250 basecoat uses glass flake that is specially treated for maximum integration into the resin system resulting in low permeability ratings that rival any other products on the market. The topcoat (TL-280AR) utilizes highly abrasion-resistant, ceramic fillers to improve wear and erosion resistance, while maintaining excellent permeation resistance and physical properties.

#### **TYPICAL USES**

TL-250AR is especially suited for use in highly abrasive environments. It is also ideal for use as a lining for steel and concrete tanks used for a wide variety of chemical processing, chemical storage, and wastewater applications. TL-250AR is used as a lining in stock chests, bleach towers, FGD tank linings and Ductwork.

#### **APPLICATION METHODS**

Primer 205 : Spray or roller  
TL-250 Basecoat : Trowel  
TL-280AR Topcoat : Spray or roller

#### **SYSTEM SUMMARY**

Primer – Steel: Blome Primer 205 (spray/roller applied 5-6 mils)  
Primer – Concrete: Blome Primer 205 (spray/roller applied 6-8 mils)  
Surfacing and coving materials: Blome CP-110HB  
Typical recommended thickness: TL-250 Basecoat is trowel applied 35-45 mils  
TL-280AR 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-250AR TROWEL/SPRAY LINING SYSTEM**

TEMPERATURE	POT LIFE	TO RE-COAT	SERVICE
75F	30-35 minutes	Consult Blome	48hrs
50F	40-45 minutes	Consult Blome	72hrs

Curing time varies with temperature, air movement, humidity and lining thickness. For maximum recoat times on basecoat and finish consult Blome.

**TYPICAL PROPERTIES**

PROPERTY	TEST METHOD	RESULTS
Shore D Hardness	ASTM D-2240	85 – 90
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
Abrasion Resistance, mg lost (CS17 wheel, 1000g, 1000 cycles)	ASTM D-4060	15 mg weight loss average
Water Vapor Transmission	ASTM E-96	Permeability (perm-inch) 0.0002

Theoretical Coverage 1331 mil sq ft/gal

Color: off white/gray

Storage Conditions: Min. 45°F Max 75°F

Shelf Life @ 70°F: 3-4 months (longer if refrigerated)

Packaging: 1 gallon units, 5 gallon units and drums

Solids by Volume 82% + - 3% mixed.

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 unopened 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.

Prime with Primer 205 to hold blast,(if required)

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 either CP-110HB (mixed to a stiff mortar consistency or Blome Primer 205 filled with #410 powder prior to application of Primer 205.

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 Basecoat.

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.

## **MIXING AND APPLICATION OF TROWELABLE BASECOAT**

1. Stir TL-250 Basecoat Part A to a smooth, uniform consistency and color using a Jiffy type mixer.
2. For every gallon of Part A, add 2-3 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 TL-280AR 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.

**APPLICATION  
EQUIPMENT FOR  
SINGLE COMPONENT  
SPRAY (TOPCOAT ONLY)**

Airless spray equipment (CI Pump) should be used to apply TL-280AR Topcoat material.

**MIXING AND  
APPLICATION OF TOPCOAT**

Stir TL-280AR Part A to a smooth, uniform consistency and color using a Jiffy type mixer.

Pour 3 ounces of Part B (catalyst) into the container holding Part A, and mix thoroughly for 2-minutes.

Pot life of the mixture using 3 ounces of Part B will be approximately 30 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.

**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-250AR 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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