

## **TL-81GF**

### **Glass Flake Filled Epoxy Lining**

#### **PRODUCT DESCRIPTION**

Blome TL-81GF is a 100% solids, glass flake filled Epoxy product for steel and concrete tank lining applications. It can be applied at thickness ranging from 15 mils to 50 mils in single or multiple coats. TL-81GF is also suited for coating structural steel and concrete in harsh fume or vapor service. Blome TL-81GF has excellent resistance to splash & spills of many corrosive chemicals.

TL-81GF is a two-component product with a 4:1 volumetric mix ratio. It is typically applied by plural component spray equipment, brush, roller, or trowel at thickness of 15 to 50 mils, in one or two coats. TL-81GF offers excellent resistance to many harsh chemicals including dilute mineral acids, concentrated alkalis, fuels, oils, salts and many solvents. TL-81GF offers high impact resistance, resistance to cracking when exposed to high temperatures or thermal shock, excellent edge coat properties, excellent bond strength to steel and good surface tolerance.

#### **GENERAL USES**

TL-81GF is suitable for a variety of lining applications including:  
Linings for FGD system tanks  
Acid Storage Tanks (interior and exterior)  
Chemical Storage Tanks  
Fuel and Oil Storage Tanks

#### **HANDLING CHARACTERISTICS**

TL-81GF may be applied using a spray rig as directed by the manufacturer. Blome International recommends using a plural component spray rig equipped with a 4:1 volumetric ratio apparatus. TL-81GF may be applied using brush or rollers. Application thickness will vary dependant upon service conditions. Consult Blome Tank Lining Systems Guide or Blome Tech Service for specific recommendations.

#### **TYPICAL PROPERTIES-WET**

Solids by Volume:	100%
Weight per Mixed Gallon:	9.5
Pot-life: 55°F:	40-50 min
75°F:	20-25 min
Cure Time (approximate): Dry To Touch: 55°F:	8 hrs
75°F:	5 hrs
Firm: 55°F:	24 hrs
75°F:	12 hrs
Chemical Service: 55°F:	72 hrs
75°F:	36 hrs
Primer:	Concrete: Primer 75 Steel: optional
Flammability:	Nonflammable

## TYPICAL PROPERTIES –CURED

Color:	Gray & Red
Hardness –ASTM D-2240 Shore D:	73
Compressive Strength -ASTM C-579:	12,400 psi
Tensile Strength –ASTM D-638:	7,000 psi
Flexural Strength –ASTM D-790:	9,300 psi
Permeability:	0.002 perm. – in.
Bond Strength –ASTM D-4541: Concrete:	Failure In Concrete
Steel:	1500 psi

## PACKAGING & STORAGE

TL-81GF is packaged in 1-gallon, 5-gallon, and 25-gallon units. Each unit consists of a premeasured Part A and Part B components.

Keep TL-81GF tightly sealed in original containers until ready for use. Store at 50°F to 75°F, out of direct sunlight. Properly stored, TL-81GF products have a minimum shelf life of one year. Refer to lot number printed on label for date of manufacture.

## BID SPECIFICATION GUIDE

Use TL-81GF 100% solids, cycloaliphatic amine cured, Epoxy tank lining system as manufactured by Blome International, O'Fallon MO.

## APPLICATION GUIDELINES

### ENVIRONMENTAL CONDITIONS

Weather conditions, especially dew point, should be constantly monitored during the work being done. Final blast cleaning and application of tank lining system must only be performed when the temperature of the steel substrate will not fall within 5°F of the dew point. Dehumidification and/or temperature control may be necessary to meet this requirement. Use a surface thermometer to frequently monitor the temperature of the steel substrate before and during application.

### JOBSITE STORAGE OF MATERIALS

Proper storage of Blome International products is important to a successful application. Store components (Part A and Part B) unopened, in a dry place, at 50°F to 75°F, out of direct sunlight, and protected from the elements. Keep away from heat and flame. For the 24 to 36 hours just prior to use adjust the storage temperature to 75°F to 85°F to facilitate handling.

## SURFACE PREPARATION

Immediately prior to application of the product:

The steel substrate must be clean of all oil, grease, dirt, dust, mill scale, rust, flash rust, corrosion product, salts, solvents, chlorides, other chemicals, and existing coatings. All welds must be smooth and continuous. All weld splatter, buckshot, laminations, and slivers must be removed and ground smooth; undercuts and pinholes must be ground smooth and filled with weld metal. All projections, high points, sharp edges, and fillets must be ground smooth to a radius of at least 1/8 inch and all corners must be rounded. All pitting, scratches, gouges, and other defects must be repaired either by welding or by filling with Blome 83MP repair materials that are compatible with TL-81GF and suitable for the intended service conditions. All surfaces to be coated or lined must be readily accessible. For tank linings, the steel must be blasted to a White Metal Finish (NACE No. 1, SSPC SP 5) with a 2 to 4 mil dense, sharp anchor profile. For exterior coatings, the steel must be blasted to a Near White Metal Finish (NACE No.2, SSPC SP 10) with a 2 to 3 mil dense, sharp anchor profile.

## **MASKING & PROTECTION**

Mask or remove adjacent surfaces and equipment that are not to be lined. Protect nearby equipment from spent abrasive exiting the tank while blasting.

## **APPLICATION EQUIPMENT**

TL-81GF may be applied using a spray rig, notched trowel, brush or roller.

Spraying TL-81GF:

1. Use a plural component airless spray rig with a fixed ratio of 4:1 such as a Graco "King" Hydro-Cat or equal.
2. Always use spray equipment in accordance with equipment manufacturer's instructions.
3. Care of Spray Rig Hoses:  
Take care to prevent the mixed material from setting up in your hoses. Keep hoses as short as possible, purge them immediately if work is interrupted, keep them out of direct sunlight and insulated, or away from hot surfaces.

The mix ratio of Part A to Part B is 4:1 A to B by volume.

## **MIXING TECHNIQUE**

Use a Jiffy type mixer for all mixing. When operating the mixer avoid plunging it up and down in the bucket. This will fold air into the resin, causing bubbles to form after the coating has been applied.

## **WORKING TIME**

The working time for mixed material is short. If work is delayed, even momentarily, immediately flush the whip hose and gun.

The warmer the components are when mixed, the shorter the working time will be. But, materials should be at least 90°F to spray properly. If possible, shade the spray rig.

Keep hoses as short as possible. Keep hoses out of direct sunlight and insulated, or away from hot surfaces. Purge hoses immediately if work is interrupted.

Stripe all welds and edges with a brush coat to assure adequate protection of these areas.

All spot welds should be puttied before applying final coats. Refer to project specifications and/or Blome International for putty material recommendations.

Use a wet mil thickness gauge and frequently monitor lining thickness.

## **MIXING & APPLICATION**

1. Individually stir Part A and Part B components to a smooth, uniform consistency and color. Any settling in the containers must be thoroughly scraped up and remixed prior to mixing or application.
2. If using a plural component spray rig, skip this step.  
Pour the entire contents of Part B into the container holding the Part A, and mix thoroughly for 2 minutes. The pot life of the mixture will be approximately 20 to 25 minutes at 75°F (Significantly less at higher temperatures). The longer the material is in the bucket after mixing, the shorter its pot life will be. Use it immediately once mixed.

3. If applying with a plural component spray rig:  
Pour the pre-mixed Part A and Part B components into their respective  
hoppers on the rig. Circulate the separate components through their  
hoses until both reach the correct working temperature. Part A should  
be at 100°F, and Part B should be at 90°F.
4. Apply the TL-81GF at the specified mil thickness and allow to cure.

**Note:** Post curing may be desirable in certain circumstances. Check with  
Blome International.

## **TOUCH UP OR RE-COATING**

Before any touch-up or re-coat material can be applied, the first coat must  
be properly prepared for maximum inter coat adhesion.

- 1) The first coat must be cured firm to the touch, clean, dry and free of  
blush or surface contaminants.
- 2) If the lining materials to be recoated has cured beyond 24-hours or  
has been in direct sunlight for more than 12 hours, the surface must  
be cleaned and abraded to remove gloss prior to application of the  
recoat material.

## **CLEAN UP**

The following tips will be helpful in cleaning hand tools and equipment after  
use:

Before TL-81GF gels, it can be cleaned from hand tools and equipment  
using hot, soapy water.

Spray equipment should be cleaned and flushed with solvents before  
coating material begins to gel.

Follow equipment manufacturer's recommendations for proper cleaning  
and care instructions.

After TL-81GF gels, solvents will be required for cleaning. Chlorinated  
solvents may be used if flammable solvents are prohibited.

## **CAUTION**

TL-81GF may cause skin irritation with prolonged or repeated contact.  
Handle with care and read the material safety data sheet, which is  
available for each product.

## **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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