

Technical Bulletin

TROWELBAC Trowelable Backing- K-004

Description:	TROWELBAC is a two component, 100% solids non-sag epoxy system specifically formulated for use when replacing worn mill liners without removing the charge. The paste-like consistency allows TROWELBAC to be easily mixed and applied to vertical surfaces. Trowelbac backing does not contain VOC's, butyl glycidyl ether (BGE) ¹ or nonyl phenol ² . TROWELBAC may be used for the same applications as REDBAC CRUSHER BACKING. TROWELBAC backing is applied to the backs and bolt holes of the liner segments to lock the bolts and liner in place. TROWELBAC may also be used as an adhesive, patching compound, or corrosion inhibiting coating in general plant use.			
Handling Properties:	MIX RATIO, VOLUME	1:1		
	VISCOSITY	Non-Sag Paste		
	SPECIFIC GRAVITY, g/cm ³	1.73		ASTM D 792
	WORKING TIME @ 70 °F (21 °C), min	45		
	GEL TIME @ 77 °F (25 °C), min 14 fl. oz (414 ml) 1/16 in. (0.16 cm) film	60 120		ASTM D 2471
Physical Properties:	COMPRESSIVE STRENGTH, psi (MPa)	10,000* (69)		ASTM D 695
	TENSILE STRENGTH, psi (MPa)	3,700	(26)	ASTM D 638
	FLEXURAL STRENGTH, psi (MPa)	6,500	(45)	ASTM D 790
	TENSILE SHEAR STRENGTH, psi (MPa)	2,400	(17)	ASTM D 1002
	HEAT DISTORTION TEMPERATURE, °F (°C)	147	(64)	ASTM D 648
	HARDNESS @ 77 °F (25 °C), Shore D	87		ASTM D 2240
	WATER ABSORPTION, %	1.78		ASTM D 570
	*Lower modulus materials often do not exhibit a definite yield point. The compressive strength st was recorded at a loading speed of 0.05 in/min and at a point in which samples had been deeply compressed. The sample had not yet fractured at the point testing was discontinued.			
Packaging:	Volume/kit:			
	24 lb. (10.88 KG) = 450 in ³ =7.57L			
Preparation:	1. Be sure that the backing surfaces are dry, free of rust, dirt, grease and oil (See No. 3).			
	2. Assemble crusher parts in the usual manner.			
	Where bonding to a surface is not required, coat the surface with a light oil or a release agent. No grease/oil/release on wear parts.			
	4. Seal all gaps with clay, putty, or plaster to prevent leakage.			
	5. If the temperature is below 60 °F (16 °C) pre-heat the wear parts to bring the temperature above 60°F (16 °C). Do not apply Trowelbac to parts hotter than 150 °F (66 °C).			

¹ Butyl Glycidyl Ether. The EPA (SARA Title III, section 312) lists it (BGE) as "Toxic" (per ANSI Z129.1) by skin absorption and an immediate health hazard.

² Nonyl Phenol is a Marine Pollutant and considered "Dangerous for the environment" per the EU directive 79/831/EEC.

The storage temperature of Copps Trowelbac will greatly impact both the ease of use and the curing time. For best results, Copps Backing kits should be stored inside (60-80 °F or 16-27 °C) for at least 24 hours before use.

- 1. Mix and apply only one (1) kit at a time to prevent Trowelbac from hardening in the container. Do not mix/use partial kits. DO NOT "EYE BALL" AMOUNTS LESS THAN ONE KIT.
- 2. Mix using the mixing paddle in a low speed (500 rpm or less), heavy duty drill and mix Trowelbac until a uniform color appears, normally 5-6 minutes, longer if backing is cold or "stiff."
- 3. *Apply immediately* into crusher or mill voids.

SAFETY PRECAUTIONS

Mix and apply in a well-ventilated area. Avoid contact with skin and eyes. If contact does occur, wash skin with soap and water and seek medical help. Read and understand all CAUTIONS on container labels and safety data sheets before using this material.

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. **DO NOT WELD ON, BURN OR TORCH ON OR NEAR, ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED.**

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