



An ISO 9001 Certified Company

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COLD CURE CRUSHER BACKING

K-024

GENERAL INFORMATION

COLD CURE CRUSHER BACKING is a 100% solids, BGE free, high performance material designed for use when air temperatures are between 25 °F and 60 °F (-4 to 16 °C). Optimum pouring temperature range is 45-55 °F (7-13 °C), which allows for typical worklife, pouring ease and timely return to service. COLD CURE CRUSHER BACKING MUST BE STORED AT, OR WARMED TO, 45-60° F (7-16 °C). Do not use K-024 at temperatures above 60° F (16 °C); the work life is too short and cracking/shrinkage may result.

HANDLING PROPERTIES

SPECIFIC GRAVITY, g/cm ³	1.70	ASTM D 792
MIXED VISCOSITY, cP or mPa.s		ASTM D 2196
@ 40° F (4° C)	20,000	
@ 72° F (22° C)	4,000	
WORKING TIME, min		
@ 40° F (4° C)	30	
@ 72° F (22° C)	7	
GEL TIME @ 40° F (4 °C), min	120	

PHYSICAL PROPERTIES

(Measured @ 72 °F or 22 °C)

COMPRESSIVE STRENGTH, psi (MPa)	18,700 (129)	ASTM D 695
TENSILE STRENGTH, psi (MPa)	6,130 (42)	ASTM D 638
FLEXURAL STRENGTH, psi (MPa)	10,500 (72)	ASTM D 790
HEAT DISTORTION TEMPERATURE, ° F (° C)	153 (67)	ASTM D 648
SERVICE TEMPERATURE, ° F (°C)	200 (93)	
HARDNESS, Shore D	95	ASTM D 2240
Barcol	50	ASTM D 2583
LINEAR SHRINKAGE, in./in. or cm/cm	0.001	ASTM D 2566
WATER ABSORPTION (30 day immersion), %	0.12	ASTM D 570

PACKAGING/KIT VOLUMES

Volume/kit:

22 lb. kit = 380 in³ = .22 ft³

50 lb. kit = 812 in³ = .47 ft³

SPECIAL HANDLING PROCEDURES

- Warm to 45-60° F (7-16 °C) prior to use.
- DO NOT use above 60° F (16 °C)!
- Add hardener to resin, mix to uniform color, pour immediately – “work life” is very short compared to regular crusher backing.
- USE ENTIRE KIT - DO NOT PORTION!

APPLICATION INSTRUCTIONS

The storage temperature of Copps Backing will greatly affect both the ease of pouring 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.

PREPARATION OF PARTS

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.
3. 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 with a torch to bring the temperature up to 80-90 °F (27-32 °C). Do not pour Copps Backing into parts hotter than 150 °F (66 °C).

MIXING AND POURING

1. Mix and pour only 1 kit at a time to prevent Copps Backing from hardening in the container. Do not mix/use partial kits.
2. Open both containers and slowly pour the entire contents of the small can (hardener) into the larger pail (resin).
3. Mix using the mixing paddle in a low speed (850 rpm or less), heavy duty drill and mix the Copps Backing until a uniform color appears, normally 3-4 minutes, longer if backing is cold or "stiff."
4. **Pour immediately** into crusher voids.

Caution: Mix and pour 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 material safety data sheets before using this material.

HANDLING/WORKING TIME

Working time will depend on backing temperature, ambient temperature and temperature of parts. (See "Handling Properties") Working time and viscosity increase as temperature decreases. With hotter temperatures, you have less time to pour. Care should be taken to insure that the entire kit is poured before the working time elapses. In other words, do not mix more than you can pour during the working time.

The cure time of Copps backing will depend greatly on the air temperature, the temperature of the concaves or mantle and the backing temperature. If the temperature is low, heat can be applied to the outside of the concaves or mantle with a torch to bring their temperature up to 80-90 °F (27-32 °C). Do not exceed 150 °F (66 °C). Do not apply the torch directly to the backing or to backing pails.

Use the chart below only as a GUIDE for approximate curing time.

<u>Temperature of bowls or mantles and backing, °F (°C)</u>	<u>Cure time from last pour to Crusher restart, hrs</u>
40 (4.4)	24
50 (10)	12
60 (16)	6

SAFETY PRECAUTIONS

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.**

WARRANTY AND DISCLAIMER

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