

Cold Cure Crusher Backing – K-024

Description:

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:

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
WATER ABSORPTION (30 day immersion), %	0.49	ASTM D 570

Packaging:

Volume/kit:
22 lb. kit = 380 in³ = .22 ft³
50 lb. kit = 812 in³ = .47 ft³

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.
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 to bring the temperature above 60 °F (16 °C). Do not pour Copps Backing into parts hotter than 150 °F (66 °C).

Mixing:

The storage temperature of Copps Backing will greatly impact 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.

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 (500 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. Work life is very short compared to regular crusher backing.

Curing Procedures:

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 ensure 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 to bring their temperature up to 60°F (16°C). Do not exceed 150°F (66°C).

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

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

SAFETY PRECAUTIONS

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 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.**

FOR INDUSTRIAL USE ONLY

WARRANTY AND DISCLAIMER

Copps Industries, Inc. gives no warranty, express or implied, and all products are sold upon condition that purchasers will make their own tests to determine the quality and suitability of the product. Copps Industries, Inc. shall be in no way responsible for the proper use and service of the product. The information given in this publication is considered to be accurate and reliable and is provided as a service only. Physical properties shown are typical. Actual properties are dependent on curing conditions and degree of cure. Any information or suggestions given are without warranty of any kind and purchasers are solely responsible for any loss arising from the use of such information or suggestions. No information or suggestions given by us shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.

