

Epoxy Crusher Backing



ESCOBAK™ Crusher Backing for standard applications



MAXBAK™ Crusher Backing for severe applications



ECO-BAK™ Crusher Backing for standard applications



ECO-BAK™ Crusher Backing for severe applications

ESCO Crushing Backing is Now Available in Four Formulas

ESCOBAK Crusher Backing for standard applications

MAXBAK II Crusher Backing for severe applications

ECO-BAK Crusher Backing for standard applications

ECO-BAK Hi-Impact Crusher Backing for severe applications

Mixing Epoxy

Directions for mixing are provided on every kit, and should be followed carefully to avoid problems.

DO NOT!

- **Over mix:** over mixing can cause backing to set more quickly, increasing the possibility of shrinkage.
- **Eyeball amounts:** use entire hardener can; extra hardener will not speed up the cure.
- **Add sand, gravel, old backing, etc.:** foreign material decreases the strength of the backing, and could cause crusher parts to fail prematurely.
- **Pour into wet/damp cavity:** moisture decreases strength of backing; too much moisture could prevent backing from setting up solid.
- **Burn or weld on or near backing:** hazardous fumes will be created.

*For detailed safety precautions Material Data Safety Sheets are available at www.escocorp.com

Shelf Life

Ideally backing should be used within 18 months of its date of manufacture. Backing that is older than 18 months, or has been stored at various temperature extremes, may usually be successfully poured if adequate pre-mixing/reconstituting techniques are used (see last paragraph of Cold Weather Storing/Pouring Suggestions).

Cold Weather Storing/Pouring Suggestions

Prolonged exposure to sub 50°F temperatures may affect the ease and quality of your pour. Furthermore, if backing has been stored over periods of temperature extremes, i.e., hot summer months, cold winter months, its consistency may be further affected. The colder the storage temperature, or the longer the exposure to cold conditions, the more likely the backing may be affected. Cold material and/or prolonged exposure to cold conditions will result in two major consequences:

1. Backing will be stiff and difficult to thoroughly mix with the hardener, and very slow pouring.
2. Backing, even when thoroughly mixed, will not setup or cure at the normal or typical rate, increasing down time.



Ideally, backing should be stored at 60-75°F, for at least 24-48 hours before your pour, longer if backing is "old", or prolonged cold storage is suspected. Backing may be warmed up by placing unopened pails in a hot water bath or near a radiant heat source.

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Cold Weather Storing/Pouring Suggestions

Avoid torching plastic pails – the pail may melt and/or the hardener (inside in the little can) may boil! If it is not possible to warm backing to room temperature 24-48 hours prior to your pour, a combination of warming techniques and pre-mixing procedures are suggested. Settled or agglomerated backing resin must be pre-mixed with a sufficiently powerful drill to a homogeneous consistency prior to hardener addition. Longer mixing times for cold backing is also suggested to reduce viscosity and improve pour-ability. Be sure not to over mix to the point where the pail feels warm to the touch or excessive entrained air is evident.

Hot Weather Mixing/Pouring Suggestions

The mixing of backing resin with hardener initiates a chemical reaction that generates heat or “exothermal”. The amount of heat generated is dependent on several factors including, backing temperature, air temperature, mixing speed, mixing time and “pour” thickness. Typically, backing is designed to be poured in 1-2in. sections; thicker pours - more material are prone to greater “exothermic” or heat generation. Replacement wear parts and crusher temperature may also have an effect on your pour.

Higher temperatures (85-90°F+) will cause the backing to “set” more quickly, increasing the possibility of shrinkage. Thick pours (2-4in. or more) may generate excessive heat and a faster cure, which may lead to shrinkage, cracking, or “pull away”.



Mixing speed and duration may also affect the performance of the backing. Mixing at speeds above 1000 rpm produces an excessive amount of air and generates heat due to friction. The trapped air – if not released during cure – may result in voids in the cured backing reducing its strength. The heat of friction reduces the work life and will increase the possibility of shrinkage. To help avoid air entrapment the use of a slow speed drill (850 rpm or less) is recommended. Mixing time should be limited to 2-3 minutes, or only until a completely streak free color change is noticed.

When it is necessary to pour epoxy backing in thick sections or at elevated temperatures, a double pour is recommended. The double pour method will minimize the effects of excessive heat generated by the backing and promote a void-free backing matrix. The first pour should be made 1-2 in. short of the top. Allow backing to cure 2-4 hours or when the backing surface has cooled to the “touch”. The second pour will fill any cracks or shrinkage that may have occurred. The bond contact between the first and second pour is not a weak point as backing bonds extremely well to itself.