



ARTURO VILLASEÑOR
Business Development

(520) 743-6106

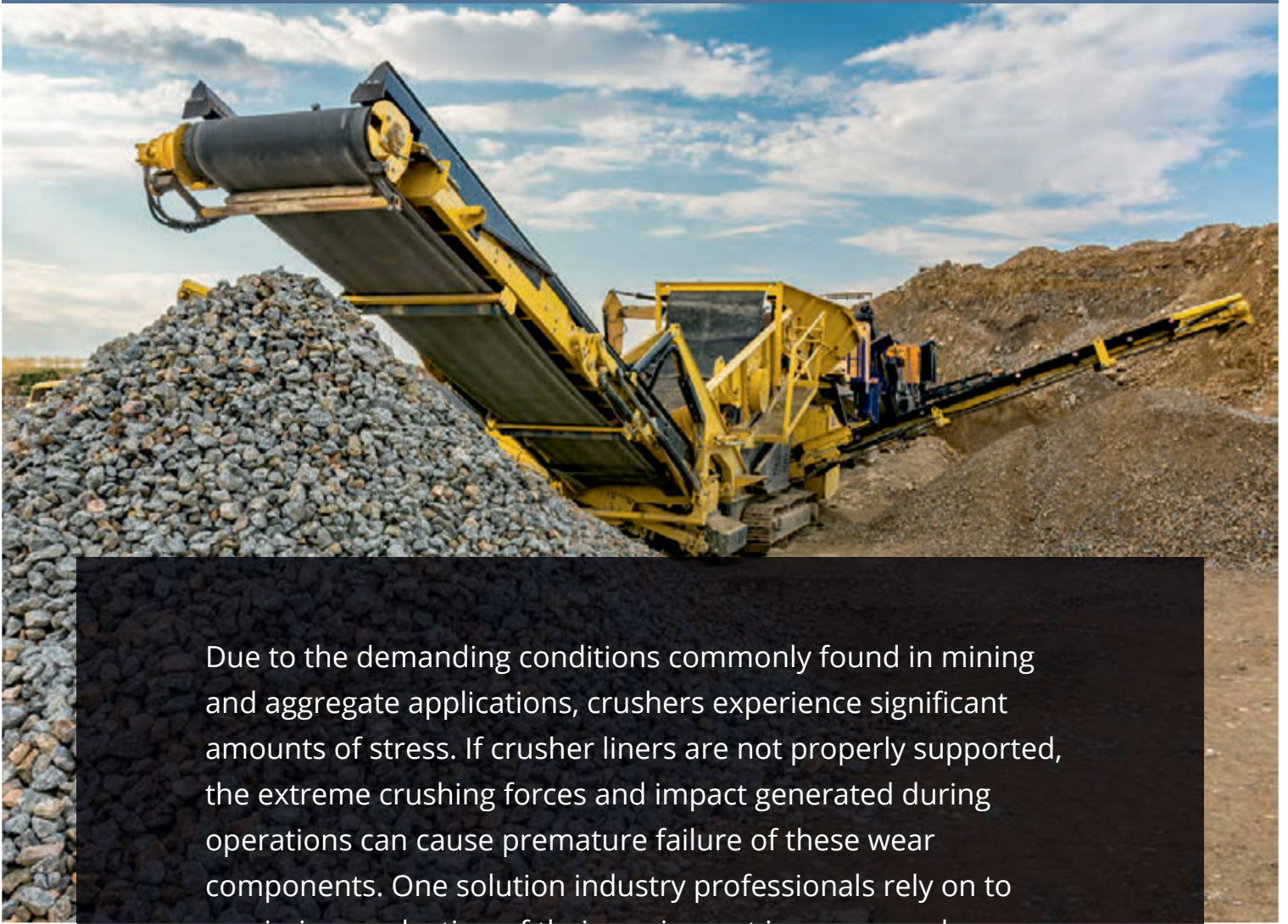
pbacoatingsolutions@gmail.com



A Guide to Epoxy Crusher Backing Solutions

for Construction Aggregates &
Ore Mining Applications





Due to the demanding conditions commonly found in mining and aggregate applications, crushers experience significant amounts of stress. If crusher liners are not properly supported, the extreme crushing forces and impact generated during operations can cause premature failure of these wear components. One solution industry professionals rely on to maximize production of their equipment is epoxy crusher backing compound to extend the life of the crusher liners. This eBook provides an overview of epoxy crusher backing compounds, including how they work, their key benefits, and typical industrial applications.

What You Need to Know About Epoxy Crusher Backing Compounds

In mining and aggregate production applications, crushers process rocks and other solid materials, crushing them into smaller pieces. However, the hardness of the materials being processed and the force exerted on and by them can cause considerable abrasion and impact damage to crusher liners without the proper preventative measures.

Epoxy crusher backing compounds are engineered to help absorb crushing forces. By applying them in the open cavities behind wear parts, they help to transfer this extreme load throughout the machinery from the impact and vibrational forces generated by the crushing operation. As a result, epoxy crusher backing compounds are highly effective for supporting wear parts throughout their life, adding to the rock crushers' production efficiency.



Compared to metal-based crusher backing solutions, epoxy-based crusher backing solutions offer several advantages. For example:

- **Increased safety.** Metal-based backing solutions involve the application of molten metal (e.g., zinc) into the machine. The high-temperature material poses a high risk of injury to workers as it can cause severe burns and explode if it comes into contact with even a very minimal amount of moisture during the pouring stage.
- **Less time-intensive.** Heating and pouring the molten metal take a considerable amount of time and money. Epoxy-based crusher backing systems are a time-saving opportunity.
- **More effective.** Metal cools quickly and shrinks as it cools. As a result, metal-based backing can feature disjointed sections and/or gaps between the machinery and the wear parts once it cools to a solid. These disjointed sections and gaps weaken the overall strength and stability of the backing layer, making it much less effective.

At Cops Industries, we offer a variety of epoxy crushing backing solutions suitable for use in various construction aggregate and ore mining applications. For example, our non-corrosive formulations are designed to support crusher liners against intense crushing conditions while addressing environmental, safety, and shipping concerns.



Key Benefits of Using Epoxy-Based Crusher Backing Compounds

There are several notable advantages to using epoxy-based crusher backing compounds, including:

- **Increased liner life.** Crusher backing compounds protect machinery from inevitable damage during operations. As a result, they reduce the amount of maintenance required and significantly prolong the time it takes for a machine or machine component to need replacement.
- **Decreased gaps and voids.** Crusher backing compounds must fully fill in the cavities behind wear parts to be effective. While metal-based materials shrink as they cool, epoxy-based materials demonstrate little to no shrinkage as they cure. As such, there is a lower risk of voids and gaps being present in the backing layer.
- **Better employee safety.** Compared to metal-based crusher backing compounds, epoxy-based ones are much safer for employees; they do not require the use of a high-temperature furnace and potentially explosive materials.



Construction Aggregate & Mining Applications of Epoxy Crusher Backing Compounds

Epoxy crusher backing compounds find use in a wide range of construction aggregate and mining applications. Some of the equipment in which they are often employed are:

Cone crushers and gyratory crushers.

Crusher backing compounds are most commonly used in cone crushers and gyratory crushers, both of which are used in aggregate and mining applications to process ore, rock, and other materials. A cone crusher is a compression crusher that breaks up solid materials by compressing or squeezing them into smaller aggregates. A gyratory crusher compresses materials between a stationary cone-shaped shell and a mantle that rotates about the central axis. Crusher backing compounds are used to reinforce the wear parts of these machines by filling the voids behind the wear part and creating a solid support structure.



Crusher Backing Solutions at Copps Industries

Crusher backing compounds play a critical role in protecting crusher liners from the continuous stress they experience during demanding construction aggregate, mining, and quarry operations. They are ideal for use in a wide range of cone crushers and gyratories.



At [Copps Industries](#), we manufacture crusher backing compounds to suit a wide range of [construction aggregate and ore mining](#) operations, all of which are carefully formulated to offer high strength, minimize shrinkage, and enhance employee safety. Here are a couple of our most requested epoxy-based crusher backing solutions:

- Our [K-001 Standard Backing](#) Designed for cone and gyratory crushers, REDBAC Standard Backing is recommended for use in most crushing applications.
- Our [K-085 XP-2000](#) High-Performance backing material is uniquely designed for exceptionally tough or troublesome crushing applications.
- Our [K-817](#) Non-Corrosive STD and [K-831](#) Non-Corrosive HP backing materials feature a non-corrosive formulation made to address employee safety and environmental impact concerns. They are kinder on the environment and safe in case of skin contact.

In addition to our epoxy-based crusher backing compounds, we carry a full line of [wear resistant and maintenance products](#) that can be used for rock, stone, and other material post-crushing operations. For example, after ore is processed in a crusher, the broken material is processed through various screens, mills, and pumps to separate the desirable ore from the rest. The abrasive, frictional forces generated during this process can wear down the surfaces of the equipment. Our wear resistant compounds are designed to minimize the amount of wear and tear that occurs during these abrasive processing operations. To learn more about our crusher backing solutions for construction or mining applications, [reach out to us](#) today.