



Devcon® DFense Blok® Eliminates Abrasion in Coal Power Plant Chute

Problem:

At a coal power plant, chutes are used to transport coal powder to the processing facility after crushing, screening, and pulverizing the raw material. Transportation of coal particulates was put to an abrupt stop when transfer chutes began to suffer high levels of wear and abrasion.

The damage to the transfer chutes was caused by the buildup of coal dust containing corrosive and abrasive chlorides. The customer was seeking a durable epoxy coating that would restore and protect the equipment so the plant could maintain its high operating efficiency.



Power plant

Solution:

The client turned to Devcon DFense Blok coating and epoxy sealer for its high performance and durability.

- Devcon DFense Blok Surface Wetting Agent was applied to the surface of the chute as a primer, providing additional adhesion and bonding strength.
- After applying the surface agent, Devcon DFense Blok was then mixed via a common jiffy mixer to achieve a final homogenous material of resin and hardener.
- Devcon DFense Blok was subsequently applied on top of the primed surface of the chute.
- The industrial strength epoxy was then smoothed with solvent to provide an easy to slide over surface that not only help with the wear reduction, but prevent raw material build up.



Application of Devcon Surface Wetting Agent



Smoothing chute surface with solvent



Project Outcome:

4X Abrasion Resistance vs. Competitive Epoxy Coating

One of the main requirements for the client was a coating and epoxy sealer that would safeguard equipment against the abrasive coal dust wear. After evaluating various industrial strength epoxies, Devcon DFense Blok was selected as it helped protect the chute from abrasive wear as well as reduced maintenance requirements in the coal powder transport area.



Application of Devcon DFense Blok

Long-Lasting Protection

To further deliver on durability, this client was able to utilize the Devcon DFense Blok Surface Wetting Agent, increasing the strength and durability of the product solution. By taking these additional measures, Devcon DFense Blok industrial strength epoxy will provide an even longer lasting protection to the coal power chute.

Maintaining Plant Efficiency

In the power generation industry, efficiency is a key requirement to keep up with demand for reliable electricity. Replacing the entirety of this chute would have significantly increased repair time and potentially increased risk to power output at the facility. With Devcon DFense Blok, the chute was repaired in-situ, and operations resumed in a matter of hours.

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