Devcon® R-Flex® Belt Repair Provides 3X Durability vs Competitive Material

The critical questions to ask when performing conveyer belt repairs are: How much time a full repair solution will take, what process should be used, and how long a temporary repair will last before requiring replacement? When performing a full belt repair, the conveyor load must be transported to a separate plant conveyor belt, which may reduce plant productivity. Therefore, a quick and effective belt repair solution is often needed to minimize downtime and increase productivity.

Grooves in copper mine conveyor belt

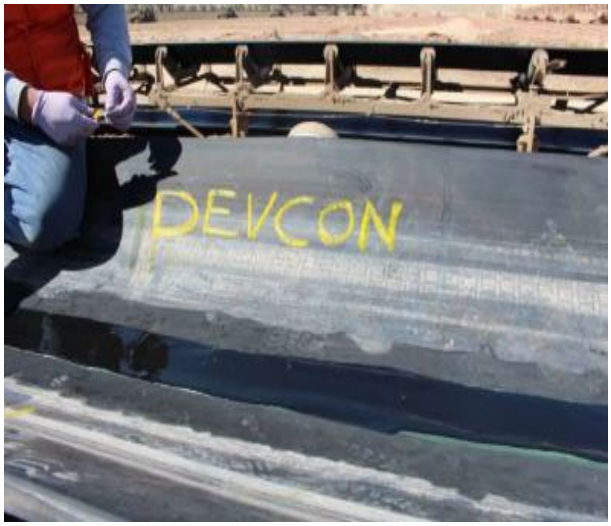
Problems:

At a copper mine, an SBR conveyor belt is used to transport ore from raw material processing to the refining area of the plant. This conveyor belt covers an extensive distance and plays a major role in the overall functional operation of the plant. However, due to handling large amounts of ore raw material, the conveyor belt faced multiple grooves and tears to the rubber lining. In addition, frequent damage to the conveyor belt impacted plant productivity. The client was looking for a durable, long-lasting belt repair solution to withstand the extreme environment of ore processing and maintain belt uptime.

Solution:

The belt was successfully repaired with Devcon R-Flex to provide durable protection against abrasive wear.

- The conveyor belt was cleared of all raw material in preparation for surface priming.
- For optimal adhesion purposes, the area surrounding the damaged belt area was abraded with a disc pad.
- A surface conditioner was applied to the damaged area to rid the surface of contaminants.
- Devcon R-Flex was then mixed and poured onto the belt grooves at a thickness of ⅛” and left to cure for 90 minutes, to provide long-term abrasive wear protection.



Belt after Devcon R-Flex application

Project Outcome:

Increase Equipment Uptime

In transporting the ore raw material an extensive distance across the copper plant, it was vital that the conveyor belt uptime be maintained. With Devcon R-Flex, the conveyor belt was back up and running within two hours.

Achieve Long-Term Durability

Before repairing with Devcon R-Flex coating, the client had used a similar competitor product and experienced wear after one operating cycle. After performing monthly maintenance checks to the conveyor belt, Devcon R-Flex was found to perform 3X longer than the competition with no wear after three operating cycles.

Copper mine conveyor belt

Simple Application in Difficult Conditions

The application conditions of this belt repair installation posed difficulty due to a hot and humid environment. Devcon R-Flex was unaffected by this extreme environment and the repair solution was seamlessly applied in a few simple steps.

Despite hot and humid installation conditions, **Devcon R-Flex coating** was seamlessly applied to the damaged belt area and the equipment was back in operation in under two hours.