Know-Howin Action

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BELZONA 4111 STANDS UP TO HEAVY MINE TRAFFIC

CUSTOMER

Alaska

APPLICATION DATE

May 2016

APPLICATION SITUATION

Mine site wash bay with a concrete floor.

PROBLEM

Extremely deep wear in the concrete floor in the tread areas of this wash bay. Full mine haul trucks roll across this floor year round with cleated tire chains. The deep ruts were being covered with heavy steel plates. Both the ruts and steel plates were causing a hazard to the crew when walking in the area.

PRODUCTS

Belzona 4111 (Magma Quartz)

SUBSTRATE

Concrete

APPLICATION METHOD

A grinder and wire wheel was used to remove all the loose material from the surface of the area of application. The exposed steel re-bar was prepped with the grinder to remove all rust and corrosion. Belzona 4911 conditioner was then applied over the area, and immediately following the Belzona 4111 was applied and finished with a steel trowel.

BELZONA FACTS

Replacing the floor was not an option as it would require the entire mine to shut down for 28 days while the concrete cured. The mine had a 3 day maintenance shut down planned, and the repair had to be done during this time, and be ready for use at the end of the shut down with no exceptions. Using Belzona 4111 allowed for the application to be done on the first day of the shut down, and was fully cured and ready for operation 3 days later. Pictures 1 and 3 years later show extremely minimal wear, and should any further repairs be needed, applying more 4111 over the top will also be fast and can be done during a scheduled shut down. The mining operation is now planning on using Belzona 4111 in several other areas of their operation as the material has proven it's suitability for this highly aggressive environment.

PICTURES

- Original wear and one of the the mining trucks causing the damage
- 2. Belzona 4111 applied May 2016
- 3. Belzona 4111 in April 2017
- 4. Belzona 4111 in November 2019









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