

BELZONA LEAK SEALING AND REINFORCEMENT WORK ON CONDENSER WATERBOX OUTLET

ID: 10282



PROBLEM

The lower section of the condenser waterbox outlet suffered severe corrosion and wall penetration due to continuous exposure to seawater and other corrosive media. The deterioration caused leakage, resulting in reduced structural integrity, operational inefficiencies, damage to surrounding equipment, and potential environmental contamination.

APPLICATION SITUATION

Concrete substrate of the lower section of the condenser waterbox outlet was rebuilt with Belzona 4111 (Magma-Quartz) to stop the leak. To further protect the target area, Belzona 5811 (Immersion Grade) was applied as a coating to protect concrete and prevent leakage caused by exposure to moisture, and other environmental and operational factors.

APPLICATION METHOD

1. Power tools were used for surface preparation and to remove all loose contaminants from the concrete at the lower section of condenser waterbox outlet.
2. Apply Belzona 4911 (Magma TX Conditioner) to ensure the optimum adhesion of Belzona 4111 (Magma-Quartz).
3. Mix Belzona 4111 (Magma-Quartz) until the desired consistency was achieved and then apply the mixed material to build up the base of the waterbox.
4. Once cured Belzona 5811 (Immersion Grade) was applied as a two-coat system to protect the concrete.

BELZONA FACTS

Unlike traditional concrete repair systems, which typically require up to 28 days to fully cure before further coating or service, the Belzona 4000 Series Magma can be overcoated within 6 hours. This reduces maintenance duration, minimizes operational downtime, and enables asset owners to return equipment to service more quickly and efficiently.

INDUSTRY

Power

LOCATION

Taeon Si, South Korea

APPLICATION DATE

January 2024

PRODUCTS

Belzona 4111 (Magma-Quartz)
Belzona 4911 (Magma TX Conditioner)
Belzona 5811 (Immersion Grade)

SUBSTRATE

Concrete

PHOTOS

1. Damaged on the lower section of condenser waterbox
2. Surface preparation before rebuilding the damaged concrete
3. Belzona 4111 (Magma-Quartz) rebuilt the damaged concrete at the lower section of the condenser waterbox outlet
4. Belzona 5811 (Immersion Grade) coated on the rebuilt concrete at the lower section of the condenser waterbox outlet

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