

Product Case History



Potash Belt Galleries Carboline Asset Integrity

PRODUCT(S) USED:

Exterior Coating 1: Carbozinc 859
Exterior Coating 2: Carboguard 890

AREA COATED:

Early in 2009, StonCor Group was contacted by AMEC and Potash Corporation of Saskatchewan to help solve a corrosion problem. This problem was discovered after the collapse of a large belt gallery in Esterhazy, Saskatchewan. This collapse was later discovered to be caused by severe corrosion of the steel floor support structure leading to catastrophic failure of the gallery.

It was determined that the floor system in the new galleries needed to be both corrosion resistant and waterproof, so that no potash or water could end up in contact with the steel structure and affect the structural integrity of the gallery. StonCor's Fibergrate and Carboline Divisions stepped up with an innovative design to solve this issue.

LOCATION:

ESTERHAZY, SASKATCHEWAN

DATE OF APPLICATION:

2009

MARKET:

METALS & MINING

SUBSTRATE:

STEEL

SURFACE PREP:

CLEAN & DRY

EXPOSURE:

POTASH, FREQ. WET W/FRESH WATER; CONDENSATE, SPLASH OR SPRAY

SURFACE PREP:

SAND BLASTING



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StonCor's Fibergrate Division designed, fabricated and installed a seamless floor and wall structure using a combination of existing and newly engineered FRP components. Components were fabricated in Fibergrate's 37,000 square foot fabrication facility in Oshawa, Ontario. Once completed, these components were shipped to B.I.D Ltd. in Woodstock, New Brunswick, where they were installed on the steel belt gallery frames and prepared for final assembly on site.

COATING SELECTION EXPLANATION:

The structure of the gallery was painted with Carbozinc 859 high load zinc primer and 2 coats of Carboguard 890 high-performance epoxy. After these sections were built, they were trucked several hundred kilometers to site and raised into place where the final assembly was completed. The light weight FRP and high-performance coating allowed the customer to deliver a high quality product that will provide years of service in a highly corrosive environment. StonCor was pleased to partner with both PCS and AMEC to help reduce construction costs and improve design life through innovative engineering.