

Experiences of using Swedpipe's CORROFLO™ coated pipes and fittings for special applications

CORROFLO™ coated pipes as alternative to PE in copper processing lines, Mining

At one of Europe's biggest Copper mines, Somincor in Portugal they had problems with buildup inside the PE pipes used in the copper plant. Parts of the line had to be dismantled and cleaned or replaced several times per year. After replacing the PE pipes with a 355mm (14") CORROFLO™ coated pipe line in 2004 the problems with buildup inside the pipes have disappeared.

In 2010, modifications to the copper plant were completed to regrind and recover additional copper and zinc concentrate from the copper tailings stream. Once again they placed an order for CORROFLO™ pipes for the same application as previous installation, another proof of their satisfactory.

CORROFLO™ coated pipes for paste lines, Mining

The paste flow at the Garpenberg mine is 100 tons per hour, 95.5% of which is waste from the Garpenberg plant, the remainder is binder, cement and ash; Merit 5000.

Plastic pipes used to be used for paste fill, but owing to recurring wear problems a better solution was sought.

"...the longer the length of the pipe we used the more numerous the problems with plastic pipe wear..." said Roger Gustavsson, Garpenberg Mine.

The choice fell on Swedpipe's piping coated with CORROFLO™. The first system was installed in the spring 2007 and so far has carried hundreds of thousand tons of paste without any leakage and with negligible wear. Since 2007 Garpenberg have frequently used CORROFLO™ coated pipes for new paste line installations.

CORROFLO™ coated pipes for Leaching, Mining

Phelps Dodge copper mine in Miami, Arizona, USA tested Swedpipe's CORROFLO™ coated pipes in a ferric cure line in their copper leaching operation in a place where stainless steel, 316L, started to leak after a couple of months due to the very aggressive corrosion from the cure solution.

Based on the excellent outcome of this test Phelps Dodge decided to use Swedpipe's coated pipes in their leaching operation and an order for a pipe line. The demands on this pipe line, that is used for transport of a solution containing approx. 100g/l sulphuric acid under a pressure of up to 28 bar (406 psi) in the tough Arizona climate with temperatures ranging from below freezing point to above 40 deg.C (104 deg.F) and in strong UV radiation, are very high.

Same experiences comes from Bulgah Gold Mine in Saudi Arabia that are using several kilometres of 323mm (12") in their leaching plant with high chloride content in the raw water.

SWEDEPIPE®

CORROFLO™ coated elbows at FLYGT PUMPS, Waste water

XYLEM/ITT experienced severe problems with wear at the grooved outlet of some of their pumps, in certain media the 90 deg elbow at the outlet of the pump had to be replaced after short time of use, sometimes after just a few days. We came up with the idea to try to use CORROFLO™ coating on the exposed elbows. FLYGT immediately saw a dramatic increase, up to 10 times longer, in the life span of these elbows coated with CORROFLO™.

SWEDPIPE

Project Manager of Major Projects

Phone: + 46 16 166585 Cell: + 46 70 2252212

Kenneth Färm