



Transport of high corrosive material from the thickeners to the neutralization plant

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Working conditions:

70°C, 11 bars

Pipes used:

Pexgol 500 mm, Class 15 and
 Pexgol 450 mm, Class 15

Application:

Transportation of corrosive material

Length:

150 m

The Challenge

Moa Nickel required to transport high corrosive material from the thickeners to the neutralization plant tanks. Originally, they used to do it through a 18 and 16 inches carbon steel line (A53, Gr.B, Sch10), with welded joints and 1/4" rubber lined. The pipe consisted in short pipe sections, 6 meters long each one, approximately 150 meters total length. It was used until it was practically destroyed as a consequence of the corrosion and wear. The engineering team decided that it needed to be replaced before it could affect the production.

The Solution

Golan presented a quick-to-install solution for the complete substitution of the line. The design included standard and special Pexgol fittings, elbows, Tee instruments and more than 150 meters of pipe. The Pexgol pipe was installed in the same spot as the former carbon steel pipe, improving the supports.

The former carbon steel pipe was 50% more expensive than Pexgol, which also was more convenient and easy to install, saving time and money for its installation.

Pipe Type	Pexgol Cost vs Others	Pexgol Total Investment Costs vs Others
Rubbed steel A53 Gr, B Sch. 20	1:1.4	1:2
Stainless steel 316L, Sch. 20	1:2	1:3
Titanium B862, Gr.2, 3 mm thk	1:2.3	1:3.2
Polypropylene PP-H, SDR 17	1:3.8	1:4.2



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Advantages

- **High resistance to wear:**
Pexgol is the preferred solution for abrasive materials transportation. Typically resists three times more than HDPE and twice more than steel.
- **Excellent chemical and corrosion resistance:**
Pexgol pipes can resist a wide range of chemical agents, slurries, toxic and radioactive materials.
- **High temperature resistance:**
Working temperatures can range from -50°C/-58°F up to 110°C/230°F.
- **Superb internal and external corrosion resistance:**
Our pipes are proven to withstand decades of exposure to corrosive environments, with non-stop performance in some of the world's harshest environments.
- **Low weight:**
Compared to steel or rubber, Pexgol's solution results in reduced transportation, storage and labor costs due to lower weight per meter.
- **Long pipe sections:**
Pexgol's pipes can be supplied in long lengths coils, reducing number of joints, installation time and risk.
- **Creep and impact resistance:**
Pexgol's crosslinking piping solution can withstand high amounts of axial and radial stresses and are highly resistant to impact, fracture and fatigue. Our pipes are also completely resistant to cracks – even when dragged over sharp rocky terrain and coagulated salt crystals.

