



PVC pipe replacement by Pexgol

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Magnelec S.A. de C.V.
Mexico | 2018
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Working conditions:

Pressure 60 psi; Temperature
60° to 80°C; Highly Corrosive Liquid

Pipes used:

Pexgol 225x20.4 SDR 15

Application:

Sodium Sulfide Transportation

Length:

600 meters

The Challenge

Magnelec had installed a Yellomine pipe (PVC pressure pipe) where it was transporting sodium sulfide. Due to changes in temperature in the fluid, dilatation and contraction of the pipe was frequent issue. The pipe was installed in sections of 6 meters each, generating leaks in the joints, which caused a lot of losses in the line of conduction. Also, there were problems in the stainless steel pipes with leaks in the joints of the welds.

The Solution

Due to this frequent problems, Magnelec decided to replace its pipes with Pexgol. Once the Yellomine pipes were replaced by Pexgol pipes, the problem of leakage was solved, thanks to the fact that Pexgol pipes were supplied in rolls of great lengths, which decreased the number of joints. The material of Pexgol pipes is flexible and absorbs the movements that can be generated by changes in temperature. They are also highly resistant to corrosion and to high and low temperatures, so it was the ideal solution. The installation was quick and easy in sections of 200 meters in length with mechanical GP connections. The installation took around 7 days. The tools used were tightening wrenches, slings, crane, etc.



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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 nonstop performance in some of the world's harshest environments.
- **Long pipe sections:**
Pexgol's pipes can be supplied in long lengths coils, reducing number of joints, installation time and risks.
- **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. Also are completely resistant to cracks even when dragged over sharp rocky terrain and coagulated salt crystals.



Test section installed in 2016, after two years there were no incrustations or leaks.



Thanks to the flexibility of the Pexgol pipes in many sections, prefabricated elbows were avoided.