



Transportation of water in more than 150 mining crossroads

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Working conditions:

Extreme environmental temperatures
(-25°C to 40°C), 10 bars

Pipes used:

Pexgol 160 mm, Class 15 (SDR 11)

Application:

Water transport

Length:

4,000 m

The Challenge

Collahuasi Mine required to transport water that needed to cross mining crossroads, where the pipes were continuously exposed by the heavy trucks that circulate the area.

In the past, the client used HDPE pipes that created a bottleneck on the crossroads. To gain time they reinforced them with steel pipes that acted as steel protectors for the pipes. But still, the solution was very expensive.

The Solution

Since 2012 the client decided to replace all the water HDPE pipes with Pexgol. This change brought several benefits to the company, such as better productivity during the installation of the lines, better performance under harsh conditions, and thanks to its mechanical properties it improved the issues reducing the bottleneck on the crossroads.

The average installation time was reduced from 3-4 days to 4 hours per crossroad. On each one a Pexgol pipe was installed without a sand bed neither a steel protector. It only required a trench and a simple process to compact ground, using the natural field.



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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.

