Water Drainage at an Underground Mine Case Study | No.31





Water drainage from the inside of an underground mine

El Peñón Yamana Gold, Meridian MineChile | 2016

Working conditions:

Extreme temperatures (-5° to 38°C)

Pipes used:

Pexgol 160 mm Class 15 (SDR 11)

Application:

Water drainage

Length:

600 m

The Challenge

The water drainage from the inside of Meridian underground mine was processed through an HDPE 12 meter pipe that required 50 joints to be installed. The total installation time was 4 days, with no chance to minimize costs. Furthermore, the pump operated over it efficiency levels.

The Solution

A 600 meters Pexgol pipe 160 mm Class 15 was provided, in one section without joints. The Pexgol pipe was carried for 6 kilometers in 2 turns, which caused as a result 50% of time saved in the installation. Due to the lower load losses, now the pump operates at its mayor efficiency level.





Water drainage from the inside of an underground mine

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.





