High pressure drain in underground mine Case Study | N°65





Installation of Pexgol pipes for the drainage of an underground mine

Ojos del Salado Mine -Lundin Mining Chile | 2018

Working Conditions:

Underground work

Pexgol Pipes:

Pexgol 160 mm (6"), Class 24

Application:

Dewatering

Length:

600 m

The Challenge

The Ojos del Salado mine (Lundin Mining) required the installation of a line for the drainage of high pressure water from the lower mine level, through the vertical ventilation chimney, with a height of 30 meters.

Primarily the client faced time problems on one hand and on the other hand needed the pipeline to be installed in the shortest time possible, without interfering with the mine's operation.

Pexgol Solution

It was decided to install a 600 m line of Pexgol 160 mm (6") class 24 pipe for drainage due to its long length supply format, ease of installation, flexibility contributing to easy accommodation into the curves of the mine interior. Furthermore, due to limited installation times operation stops could be avoided.

It took only 2 days to uncoil and assemble the pipe. For reasons of convenience and at the request of the Prevention Department, the pipeline was placed in sections of 150 meters, since it had to be pulled a 5 km long ramp from the mine interior to the installation point.

Under the same conditions when installing HDPE pipeline, it would have taken about 1 week only to prepare the sections before installing them inside the mine and furthermore only shorter sections could have been installed due to the rigidity of the material.





High pressure drain in underground mine Case Study | N°65



Installation of Pexgol pipes for the drainage 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 nonstop

performance in some of the world's harshest environments.

Long pipe sections:

Pexgol pipes can be supplied in long coil lengths, reducing number of joints, installation time and risks.

• Creep and impact resistance:

Crosslinked Pexgol pipes can withstand high amounts of axial and radial stresses and are highly resistant to impact, fracture and fatigue. Furthermore, Pexgol pipes are completely resistant to cracks even when dragged over sharp rocky terrain and coagulated salt crystals.



