High-pressure fluid transport



High-pressure water transport for the Southern Pit in a copper and zinc mine.



Minera Antapaccay Peru | 2023

Working Conditions

Exposed pipe with 30 bar (435 PSI) repump system

Pexgol Pipe

Pexgol 355 mm (14"), class 30

Application

Drain water transport

Length

270 m / 885 f

The Challenge

Minera Antapaccay faced the challenge of laying a pipeline over the slope of the Southern Pit from level 3870 to level 3632; for its project to drain groundwater from the bottom of the pit to connect to the water network for the plant, located in the mine area. Given the morphology of the slope in the terrain and the difference in heights (238 meters), a pipeline was required that would provide safety for working with high pressures and that could be exposed to the sun and low temperatures without the need to bury it.

The Solution

It was decided to install Pexgol since it is supplied in roll format, in this case up to 90 m in length. Compared to steel and HDPE, which are supplied in 12 or 14-meter sections, this supply format minimized labor and the likelihood of failure. Likewise, the potential for making joints on the slope's body was reduced, decreasing the exposure of personnel to high-risk work. The laying was carried out using the brand's equipment, making use of a pipe uncoiler, yellow line equipment, and manual pulling equipment (tirfor), due to the limited space for unrolling. Connections were made using electrofusion couplings and stub-ends.









The Advantages of Pexgol Pipe Systems







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.



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.



Excellent chemical and corrosion resistance

Pexgol pipes can resist a wide range of chemical agents, slurries, toxic and radioactive materials.



Long pipe sections

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



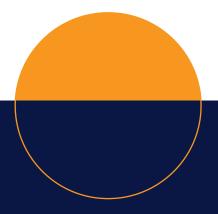
High temperature resistance

Working temperatures can range from $-50^{\circ}\text{C}/-58^{\circ}\text{F}$ up to 110 $^{\circ}\text{C}/230^{\circ}\text{F}$.



Creep and impact resistance

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.



For more information please visit: pexgol.com