

Elevating Efficiency in Hydrocarbon Exploitation

Changing carbon steel for efficiency: Pexgol PE-X pipes in Aconcagua Energía



Aconcagua Energía Argentina | 2023

• Working Conditions

Temperature: 35°C / 95°F
Flow: 80 m³/hour
Pressure: 10 Kg/cm²

• Pexgol Pipe

Pexgol 110 mm (4"), class 24

• Application

Formation water

• Length

1280 m / 4199 ft

The Challenge

As an independent energy company that vertically integrates all operations, Aconcagua Energía S.A. was seeking ways to enhance efficiency in its exploration and exploitation of conventional hydrocarbons. The primary challenge lay in the management of their formation water transportation line. An existing carbon steel pipe, used for this project, faced significant corrosion due to the transport of formation water, necessitating its removal from service. The project required a piping system that could withstand the corrosive environment, perform under operational conditions, and could be installed quickly and efficiently over a distance of approximately 1280 meters (or around 4199 feet).

The Solution

Pexgol was chosen as the ideal piping solution for Aconcagua Energía S.A. A Pexgol pipe of 110 mm diameter, class 24, renowned for its high resistance to chemicals and corrosion, was provided. Despite the project's length and the piping system's operational conditions—35°C (95°F) temperature, 80 m³/h flow rate, and 10 Kg/cm² pressure—Pexgol pipe's durability and performance were unflinching.

One of the main benefits of Pexgol is its ease and speed of installation. The installation was completed in two days. Each morning, with the assistance of a backhoe, each roll was extended in less than an hour. The afternoons were spent burying the pipes at road crossings.

Another advantage of Pexgol pipes is the provision of long lengths that could be transported in rolls, minimizing the need for joints and reducing installation time. Mechanical double connectors and GP flanged couplers were used in the installation, further ensuring a secure and leak-free system.

With Pexgol pipes, Aconcagua Energía S.A. successfully upgraded its formation water transportation system, reinforcing its commitment to efficiency and productivity. The client has also expressed a desire to replace their PRFV (Fiberglass Reinforced Plastic) pipe aqueducts with PEX, given the challenges they faced during the transportation and installation of PRFV. This successful transition attests to Pexgol's superiority and reliability as a piping solution in the energy sector.



The Advantages of Pexgol Pipe Systems



High wear resistance

Pexgol is the preferred solution for abrasive materials transportation. Typically resists three times more than HDPE and twice more than steel.



Superior corrosion resistance

Pexgol withstands decades of exposure to corrosive environments, with nonstop performance in some of the world's harshest environments.



Excellent chemical and corrosion resistance

Pexgol pipes endure 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 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 tolerate abnormal 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

