

Optimization of Lithium Brine Transportation

Moving from PVC to Pexgol: Ensuring Efficiency in Lithium Production



Puna Mining Argentina | 2022

• Working Conditions

Flow: 77m³/h
Pressure: 60 psi

• Pexgol Pipe

Pexgol 2", 5" & 6", class 15

• Application

Transport of raw brine

• Length

2 km

The Challenge

Puna Mining S.A., a pioneer in high-quality battery-grade lithium carbonate production (99.5% purity) in Argentina, faced operational challenges with its brine transportation system. Founded in 2017 by Pablo Alurralde and later forming a joint venture with Argosy Minerals Ltd., the company was committed to utilizing cutting-edge technology in its production processes. However, their existing PVC piping presented significant limitations, requiring constant maintenance, frequent pipe replacements, and struggling with ongoing crystallization issues, which directly affected efficiency and increased operational costs.

The Solution

Pexgol stepped in with a tailored solution to address Puna Mining's challenges. The introduction of Pexgol pipes of 6, 2, and 5 inches over a 2-kilometer stretch was designed to meet the specific demands of raw brine transportation.

The complete installation was accomplished in just three days, highlighting the ease and efficiency of Pexgol pipes.

ArgPex provided on-site training to ensure a smooth and optimized installation process.

Benefits of Switching to Pexgol

By adopting Pexgol pipes, the following advantages were realized:

- Rapid installation
- High chemical and corrosion resistance
- Material flexibility
- Long lifespan
- Reduced thermal conductivity
- Lightweight pipes
- Availability in long rolls for easier handling and installation



The Advantages of Pexgol Pipe Systems

PEXGOL
X-LINKED PIPING SOLUTIONS



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 external 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 can 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 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

