

From carbon steel to Pexgol: A victory against corrosion

Pexgol helped Profertil to overcome the corrosion challenge in its fire protection network.



Profertil Argentina | 2021

• Working Conditions

Ambient temperature
Pressure: 10 kg/cm²

• Pexgol Pipe

Pexgol 63, 180, 225, 250 & 250 mm,
class 15

• Application

Fire Protection Network

• Length

2000 m / 6562 ft

The Challenge

Profertil, a leading producer and supplier of soil nutrients with an annual production capacity of 1,320,000 tons of Urea and 790,000 tons of ammonia, faced a critical challenge at their Bahia Blanca facility in Argentina in 2021. The fire protection network in their plant, originally made from carbon steel, was highly susceptible to corrosion due to two distinct factors: the hardness of the water running through the pipes, causing internal corrosion, and the high salt content in the coastal soil, inducing external corrosion. This corrosion was causing leaks in the pipes, compromising the effectiveness of their crucial fire protection network.

The Solution

Pexgol provided an effective and efficient solution to Profertil's problem with its range of corrosion-resistant PE-X pipes. Pexgol pipes of various sizes (63, 180, 225, 250, and 280 mm) were used to replace the 2000 meters (6562 feet) of the existing fire protection network.

Pexgol's fusion couplers, flange couplers, PE-X coated fittings, Pexgol reducers, Pexgol elbows, and fire hydrant connectors were used in the installation process. The installation was smooth and straightforward, thanks to Pexgol's flexible material that offers rapid installation and reliability, a major advantage over the previous carbon steel system.

The local team, ArgPex, provided ongoing support throughout all stages of the project, from engineering and logistics to installation and commissioning, ensuring that the customer was well-guided and supported throughout the entire process.

Opting for Pexgol's solution not only provided a system resistant to the corrosive effects of hard water and salty soil, but also a solution with a longer life span and fewer interferences within the plant, due to the flexibility and durability of Pexgol pipes. This successful replacement has set a new standard for Profertil's operations, highlighting the effectiveness of Pexgol's innovative approach to corrosion-resistant pipe systems.



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 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°C/-58°F up to 110°C/230°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

