

Goodbye Asbestos: Pexgol Modernizes Thermal Water Network



850 Meters of Pipe Replaced in Less Than 24 Hours, Without Affecting Residents.



Raquet Club Lake Chapala Mexico | 2024

• Working Conditions

Temperature: 87°C / 188°F
Flow Rate: 15 l/s
Pressure: 9.9 bar
Fluid Components: Thermal water (with chlorides, sulfates, sodium, calcium, and magnesium)

• Pexgol Pipe

Pexgol 6" SDR 7.3, SDR 11 & SDR 15

• Application

Thermal water transportation

• Length

850 m / 2788.71 ft

The Challenge

Raquet Club Lake Chapala, a tennis club located in San Juan Cosalá (Mexico), had a thermal water distribution network built with 10" asbestos cement pipes installed several decades ago. Although this material was considered durable at the time, it is now recognized as hazardous: asbestos fibers can be released as pipes deteriorate, posing a serious health risk to residents.

The community faced a dilemma. Replacing the existing line with conventional solutions would involve prolonged interruptions to the potable water supply—an unacceptable impact for users. Additionally, the available alternatives could not guarantee sufficient resistance to the network's demanding conditions: high temperature (87°C), pressure of 9.9 bar, and aggressive chemical composition (bicarbonates, chlorides, sulfates, calcium, magnesium, sodium).

Traditional options also required extensive excavation to remove the old pipes, significantly increasing costs and extending the project timeline. The structural deterioration of asbestos cement, combined with health and operational risks, made an innovative, efficient, and safe solution urgently necessary.

The Solution

The choice of Pexgol pipes for this renovation was key to overcoming all project challenges. A total of 850 linear meters were installed in different pressure classes (SDR 7.3, SDR 11, and SDR 15) in just one working day, meeting the commitment to keep water supply interruptions under 24 hours.

How was this achieved? By using the existing asbestos pipe as a guiding duct, the new Pexgol line was pulled through the entire route with a steel cable, eliminating the need for excavations. Thanks to its abrasion resistance and high flexibility, Pexgol withstood the pulling process without compromising its integrity. In addition, its ultra-smooth inner surface (roughness 0.0006 mm) allowed maintaining the original flow rate despite the pipe's smaller internal diameter, optimizing hydraulic performance.

The installation was carried out using flanged couplings, without welding or complex works. Although the contractor had no prior experience with this system, Pexgol's technical team provided full support: maneuver selection, staff training, and detailed planning. The result was a fast, clean, and safe implementation—without causing inconvenience to residents.



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°C / -58°F up to 110°C / 230°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

