# Water Lines - Harsh Conditions

**Case Study** | No.9

Transportation of brackish water to the main pumping station

## Dead Sea Works

Israel | 1993

## Working conditions:

Over 20 years of direct sunlight (UV) exposure. Ambient temperature variation from 47°C to -5°C (116°F to 23°F).
Rock build-up from seasonal floods

## Pipes used:

Pexgol Ø355 Class 10 (SDR 16.2)

## Application:

Brackish water transportation

## Length:

120 meters

## The Challenge

The Rahaf dry riverbed has several powerful seasonal floods every year, causing heavy rocks and soil to drift and swipe everything in its way.
In order to transport water to the main pumping station, which supplied water from the sea to the plant, Dead Sea Works had to lay a waterline of 100 meters across the Rahaf dry riverbed.
Original asbestos pipe laid in a trench crossing the riverbed but the floods uncovered the pipe and damaged it, requiring the replacement of the pipe.

## The Solution

A Pexgol Ø355 Class 10 (SDR 16.2) pipe was laid in a ditch across the riverbed, without sand embedding.
The original pipe was made from combined short sections that required a complex installation and reinforced foundations. The Mean Time Between Failures (MTBF) was two years.
Since the easy installation of the Pexgol pipe in 1993, it has been working with no failures.

**Golan Plastic Products Ltd.** Kibbutz Shaar Hagolan, 15145, ISRAEL
**T.** +972-77-9021040 | **F.** +972-77-9021010 | golan@golan-plastic.com | www.pexgol.com

# Water Lines - Harsh Conditions

**Case Study** | No.9

PEXGOL X-LINKED PIPING SOLUTIONS

## Transportation of brackish water to the main pumping station

### Advantages

- **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.
- **Excellent chemical and corrosion resistance:**
  Pexgol pipes can resist a wide range of chemical agents, slurries, toxic and radioactive materials.
- **High temperature resistance:**
  Working temperatures can range from -50°C/-58°F up to 110°C/230°F.
- **Superb internal and external corrosion resistance:**
  Our pipes are proven to withstand decades of exposure to corrosive environments, with non-stop performance in some of the world's harshest environments.
- **Low weight:**
  Compared to steel or rubber, Pexgol's solution results in reduced transportation, storage and labor costs due to lower weight per meter.
- **Long pipe sections:**
  Pexgol's pipes can be supplied in long lengths coils, reducing number of joints, installation time and risk.
- **Creep and impact resistance:**
  Pexgol's crosslinking piping solution can withstand high amounts of axial and radial stresses and are highly resistant to impact, fracture and fatigue.
  Our pipes are also completely resistant to cracks – even when dragged over sharp rocky terrain and coagulated salt crystals.

**Golan Plastic Products Ltd.** Kibbutz Shaar Hagolan, 15145, ISRAEL
T. +972-77-9021040 | F. +972-77-9021010 | golan@golan-plastic.com | www.pexgol.com