

MINING INDUSTRY



GEOSYNTHETICS DIVISION

Quality, commitment, and responsibility

Sotrafa sells in over 60 countries worldwide with commercial offices located in our core markets, and has manufactured and supplied over 100 million m² of Geomembrane since 2005.

Thanks to its use of the most advanced technologies in flat-die extrusion, SOTRAFA manufactures high-quality geomembranes which meet the most demanding of market requirements.

Alvatech® Geomembranes fully comply with the quality standards required by the regulations applicable to each market.

Efficient solutions with geosynthetics

Applying to 4 main sectors:



MINING



ENVIRONMENTAL



**WATER
MANAGEMENT**



CIVIL WORKS

GEOMEMBRANES
Alvatech®



Mineral extraction and Geosynthetics applications

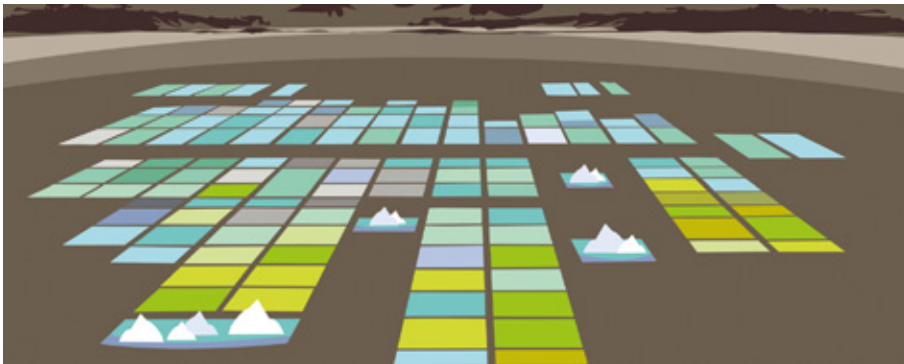
• IN SITU

In-situ extraction process through wells that requires large amount of water to dissolve them and bring the minerals to the surface.

Salt evaporation ponds

Lithium: Lithium carbonate to produce batteries for electric cars, telephones, medical applications, etc.

Potassium: Applied in fertilizers for agriculture.



• HEAP LEACH PROCESS

The low grade metal ore (Au, Ag, Cu) is crushed and placed in piles on a waterproof surface. Subsequently, the ore is irrigated to leach the metal particles from it.



• TANK LEACHING PROCESS

The ore containing metals (Au, Ag, Cu) is crushed and poured into large tanks and by means of flotation - leaching and flocculation remove the metal particles.

This system achieves a higher performance than heap leaching.

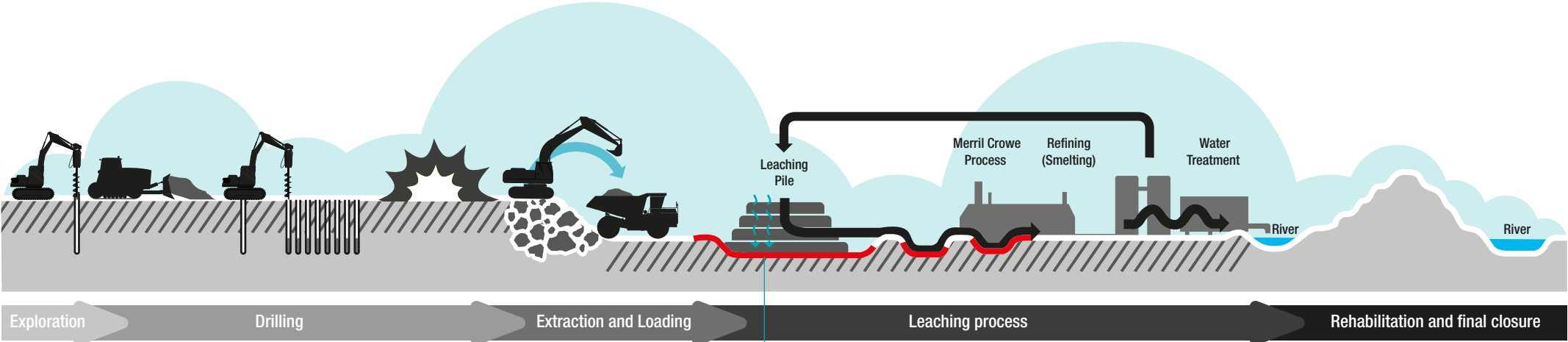


• TAILING DAM PROCESS

Contaminated soils or cyanide sludge from leaching tanks are stored in well-sealed dams.



Stages of the Mining process



GEOMEMBRANES
Alvatech®

Alvatech® Geomembrane to the Mining Industry

GEOMEMBRANES
Alvatech®

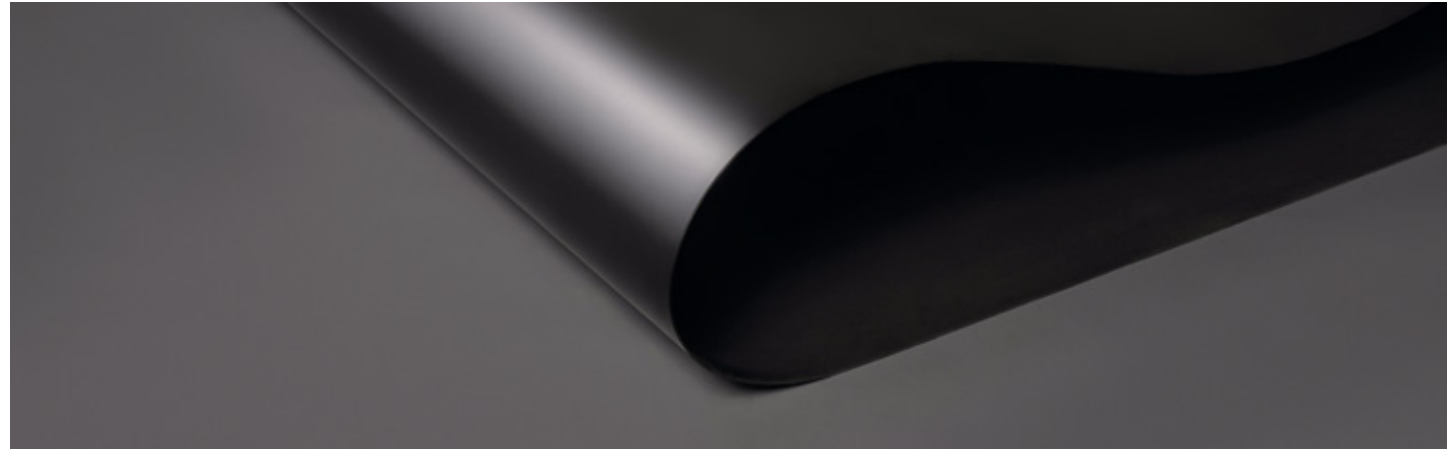
Alvatech® 5002 HDPE

High Density Polyethylene (HDPE)

Excellent chemical and mechanical resistance
High Durability
Excellent flexibility and weldability
Greater installation performance on site

SOLUTIONS IN THE MINING INDUSTRY

Heap leach pads, tailings dams, salt evaporation pools, solution ponds, floating covers, lagoons and secondary containment.

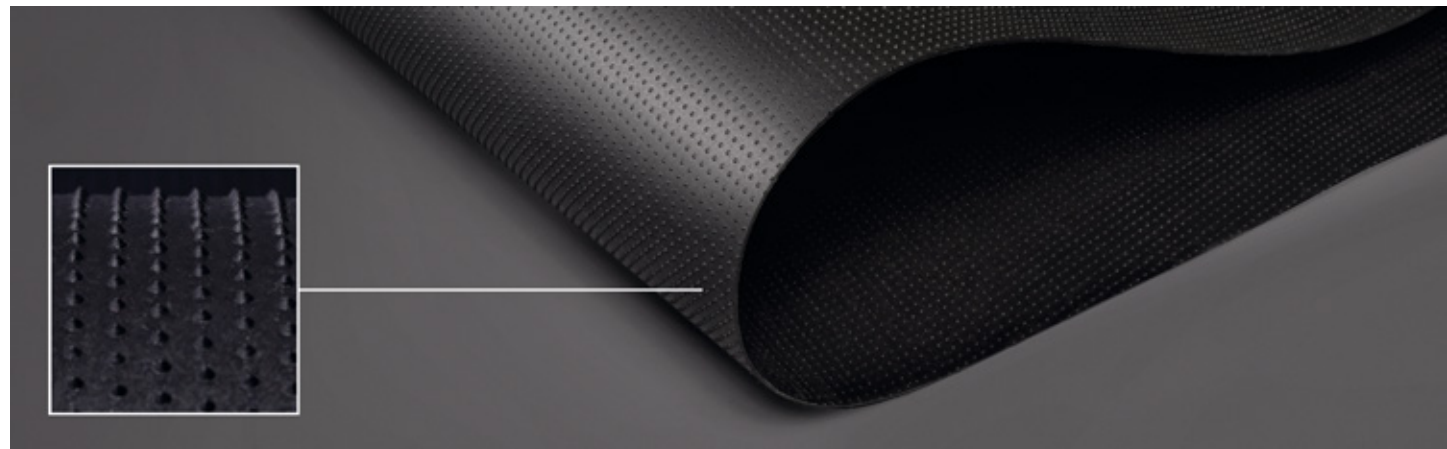


Alvatech® FIX HDPE or LLDPE

Textured sheet on one or both sides, of High Density Polyethylene (HDPE)
High coefficient of friction
Height of spikes > 0.90 mm
Excellent sheet-thickness control.
Uniform surface.
Smooth borders for easy welding.

SOLUTIONS IN THE MINING INDUSTRY

Heap leach pads, tailings dams, salt evaporation pools, solution ponds, lagoons, and secondary containment.



Alvatech® Geomembrane to the Mining Industry

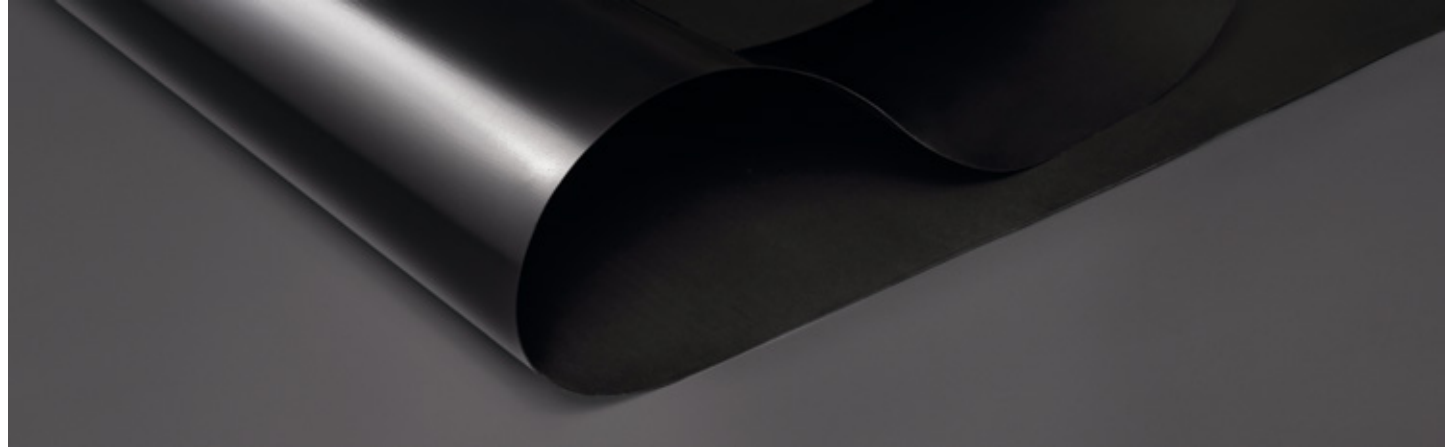
GEOMEMBRANES
Alvatech®

Alvatech® LLDPE

Smooth or textured sheet of Linear Low Density Polyethylene (LLDPE)
High chemical and mechanical resistance
Greater installation performance on site
Excellent flexibility

SOLUTIONS IN THE MINING INDUSTRY

Heap leach pads, tailings dams, salt evaporation ponds, solution ponds, floating covers, secondary containment.

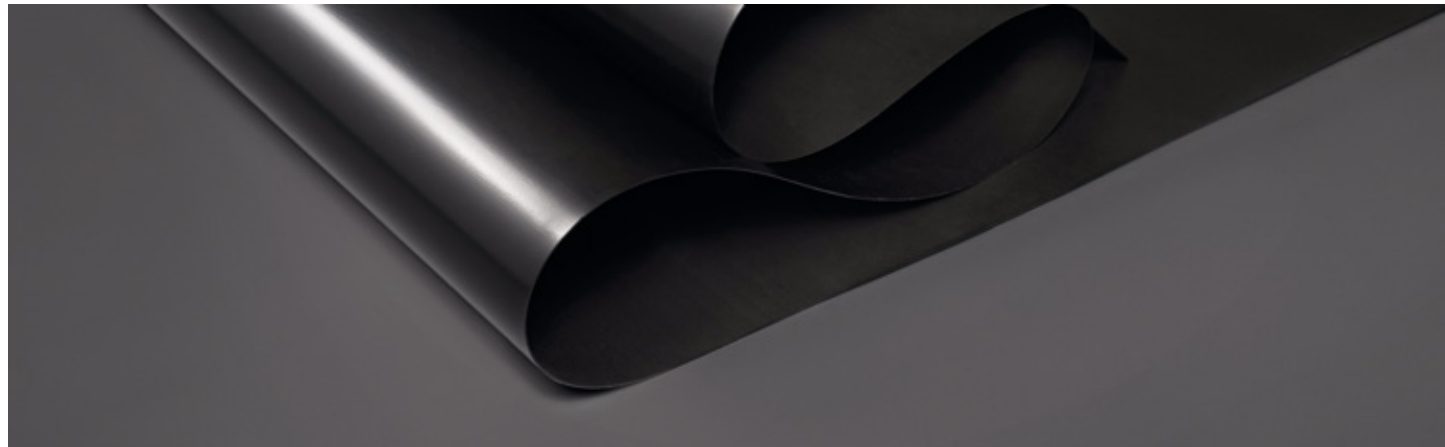


Alvatech® VLDPE

Very Low Density Polyethylene Sheet (VLDPE)
Ultra flexibility
Good chemical resistance and mechanical properties
High durability outdoors

SOLUTIONS IN THE MINING INDUSTRY

Salt evaporation ponds, floating covers, secondary containment.



Alvatech® Geomembrane to the Mining Industry

GEOMEMBRANES
Alvatech®

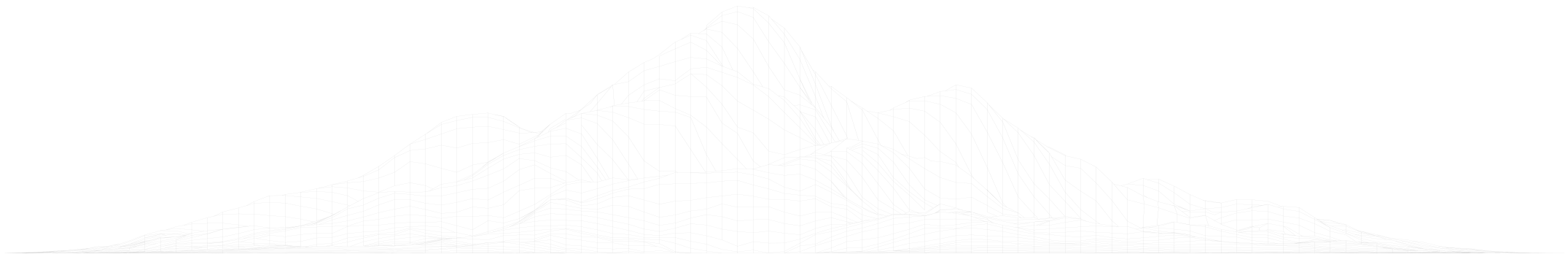
Alvatech® THERMOFILM

This bioleaching membrane, also called Thermofilm, is a sheet of low-density polyethylene (LDPE).

Reduces water evaporation by around 80%.
High thermal conductivity which improves the uptake kinetics by up to 4%.
Very easy extraction.
Sheets with very large widths that can cover large surfaces.
More uniform irrigation

SOLUTIONS IN THE MINING INDUSTRY

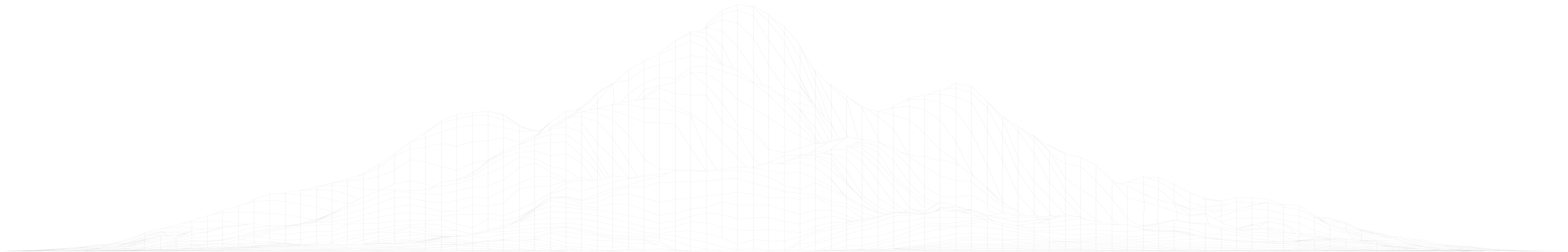
Heap leach pads.



On-site solutions with Alvatech® Geomembranes

GEOMEMBRANES
Alvatech®

SOLUTIONS IN THE MINING INDUSTRY	Alvatech® 5002	Alvatech® FIX	Alvatech® LLDPE	Alvatech® VLDPE	Alvatech® TERMOFILM
Heap leach pads	✓	✓	✓		✓
Tailing dams	✓	✓	✓		
Salt evaporation ponds	✓	✓	✓	✓	
Solution ponds	✓	✓	✓		
Lagoons	✓	✓			
Floating covers	✓		✓	✓	
Secondary containment	✓	✓		✓	





(+34) 950 405 600

Paraje Cartabona, 12 Apdto. Correos 73
04710 Sta. Mª del Águila, El Ejido (Almería) SPAIN

info@sotrafa.com

sotrafa.com

