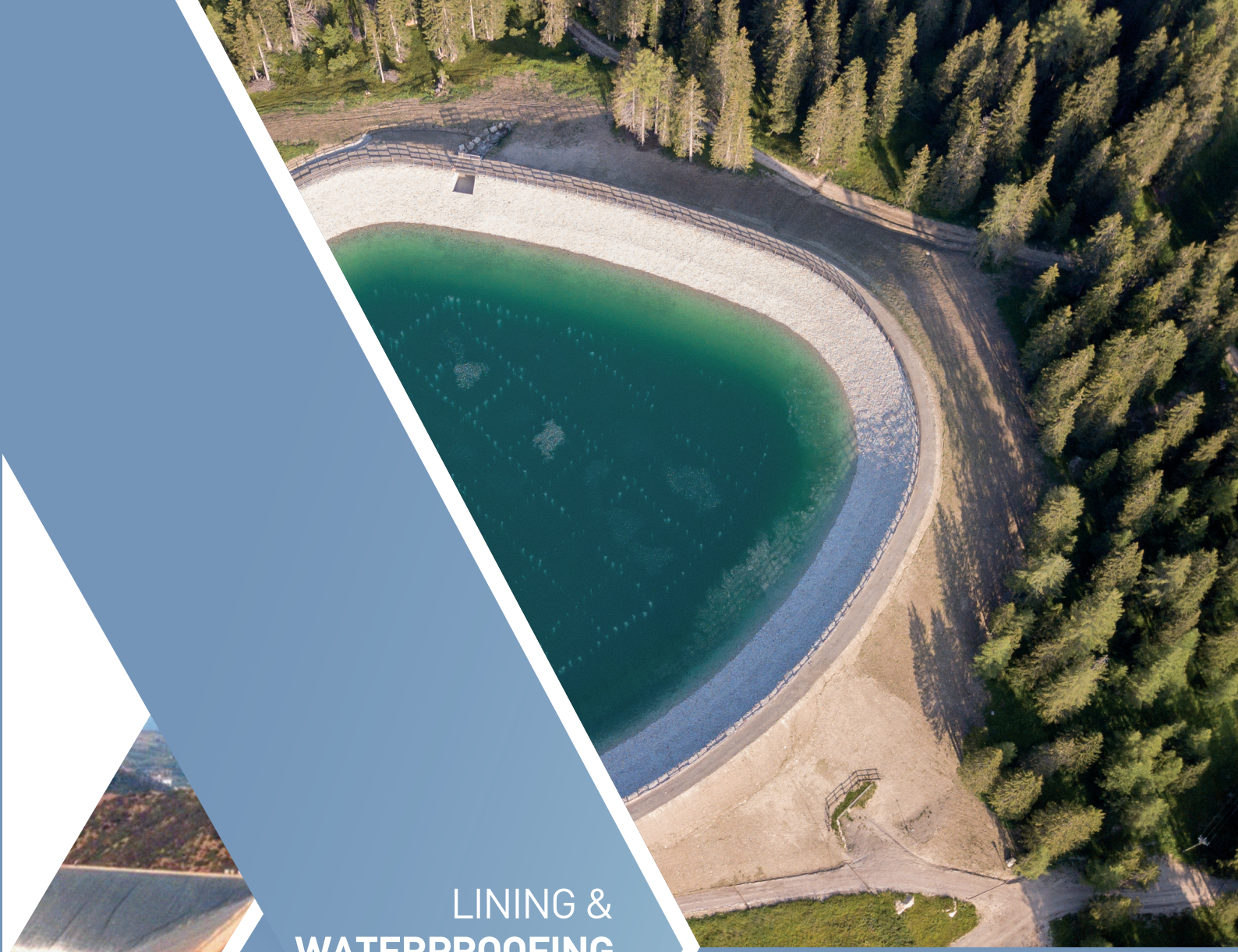
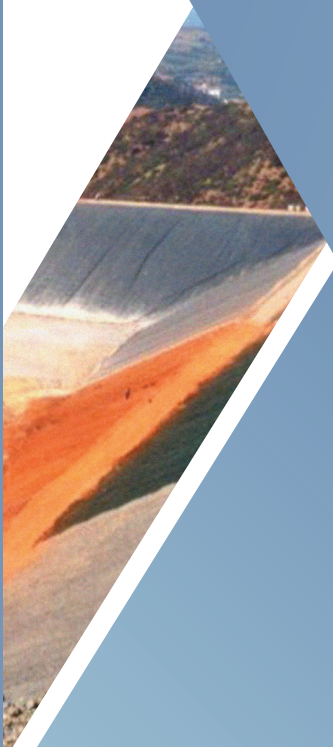


LINING &
WATERPROOFING
TECHNOLOGIES

CLAY GEOSYNTHETIC BARRIERS

ENVIRONMENTAL



LAVIOSA
Advanced Mineral Solutions

Adding value
TO YOUR BUSINESS

OUR **COMPANY**

Laviosa Minerals SpA is the holding company that controls the shareholdings of the Laviosa family.
These include the industrial activities of Laviosa Chimica Mineraria SpA, which consist in extracting, processing and distributing industrial mineral products, and the logistic activities of Carlo Laviosa Srl, a maritime services agency, freight forwarder and terminal operator.
Our main strengths and skills lie in the control of our raw materials, our process technology, our localised production in various parts of the world, and our applicative knowledge of the product, all of which are supported by logistic services and a customer-oriented approach.

LAVIOSA **WORLDWIDE**

BENTONITE & **GBR-C**

Bentonite is a clay mineral of the smectite group and is composed mainly of **montmorillonite.**
The smectites are a group of minerals that swell as they **absorb water or organic molecules** within the structural layers; they also have considerable cationic exchange properties. The clay mineral they are composed of in the crystalline state is derived from the devitrification, and consequent chemical change, of glass of magmatic origin, usually tufa or volcanic ash (Ross and Shannon, 1926).
The nature and **volcanic origins** of bentonite deposits give rise to varieties of the mineral that are often extremely heterogeneous. The bentonites that are thus formed can be described as **sodium, calcium and acid bentonites.**
GBR-C are hydraulic barriers consisting of a layer of low permeability bentonite supported by geotextiles or geomembranes assembled with different systems. The main function is lining and waterproofing in environmental and building applications.

Find out more on our website: **www.laviosa.com**

ENVIRONMENTAL

MODULO GEOBENT

- WASTE DISPOSAL BOTTOM BARRIER
- WASTE DISPOSAL CAPPING
- BASINS
- HEAP LEACHING PADS
- CHANNELS

APPLICATION

- **Bottom barrier** in temporary or permanent solid and liquid waste disposal
- **Capping** of solid waste disposal
- **Waterproofing of basins**, water reservoirs, ornamental ponds, channels
- **Waterproofing of hydrocarbon** and derivate deposits
- **Lining** of Heap Leaching Pads in mining activities

LAVIOSA TECHNICAL SUPPORT

Our Lining and Waterproofing technologies team is capable of providing our customers the best technical support required.
Our experience in the sector and our knowledge are at the service of our customers.
We can supply technical and commercial documentation such as data sheets, installation guide, commercial offers, transport solutions and much more.
We also help our customers to choose the most suitable product to comply with project specifications and to clarify any request.

LAVIOSA QC LAB:
Our laboratory, in addiction to constantly guaranteeing the conformity of the finished product, can provide qualitative and quantitative analyses in compliance with current standards and norms.

PRODUCTS

MODULO GEOBENT

XP **MODULO GEOBENT XP**: is made of one polypropylene woven as carrier layer and one polypropylene nonwoven as cover layer, which encapsulate a uniform layer of high performances mix of granular and powder sodium bentonite. The connection between the cover and carrier geotextile is achieved by needle punching process, which enable the two geotextiles to be joined by thousands of fibres through the bentonite layer. **MODULO GEOBENT XP** is a perfect solution for applications on steep slopes.

NW **MODULO GEOBENT NW**: is a needle punched geosynthetic clay layer made of one needle punched nonwoven polypropylene geotextile as cover layer and one calenderer polypropylene nonwoven as carrier layer which encapsulate a uniform layer of sodium bentonite. **MODULO GEOBENT NW** is a perfect solution for flat of moderate sleep slopes.

IC **MODULO GEOBENT IC**: is made of one polypropylene woven as carrier layer and one polypropylene nonwoven as cover layer, which encapsulate a uniform layer of high performances mix of bentonite and polymers to increase the bentonite performances also in contact with aggressive permeants or salted water.

On our website you can find Technical Data Sheets of all our products.

BENEFIT

- Volume savings. At list **50 times less thickness** than CCL.
- **Quick** and **easy installation** not requiring any special equipment/workers.
- Factory controlled material ensuring **less QC on site.**
- **Higher resistance** against wet/dry and freeze/thaw cycles.
- **Higher resistance** against aggressive environments if polymer enhanced.
- Self healing properties but in any case **easy to be repaired.**
- **Environment sustainable** due to less trucks involved.
- Calibrated mix of granular and powder bentonite to get a**dvantages related to both bentonite form.**
- Geotextile opening size specifically defined to improve **self healing** and **self seaming** properties on the overlaps.
- Bentonite control from our mines to the site **providing superior consistent performances** to our clients.
- **High internal shear strength** and **high friction interaction** provided by superior needlepunching and thermal lock process.

On our website you can find Technical Data Sheets of all our products.

metodoadv.com

LAVIOSA
Advanced Mineral Solutions

Laviosa Chimica Mineraria SpA
ITALY

Laviosa Sanayi Ve Ticaret Ltd Sti
TURKEY

Laviosa France SA
FRANCE

Laviosa India Pvt Ltd
INDIA

www.laviosa.com
lwt@aviosa.com

Find out more about our certification standards on our web site.