



Dehumidification systems, water repellent treatments, thermo-acoustic insulation, waterproofing



From Project to Jobsite

TECNOCLAY GEO GRIP/TEX/PRE

BENTONITE WATERPROOFING MEMBRANE

Description TECNOCLAY GEO GRIP/TEX/PRE is a bentonite waterproofing geotextile, composed as a sandwich system with 3 layers of woven/non-woven tissue and natural sodium bentonite with a total weight of 4330 g/m².



PLP side



woven/non-woven side

It is the only bentonite waterproofing system which has **auto-gripping characteristics to concrete in the phase of the casting** of horizontal concrete such as groundplates, and vertical such as sheet piling, diaphragms, micropoles, Berliners.

- Advantages/ characteristics**
- TECNOCLAY GEO GRIP/TEX/PRE remains adhered by contact to concrete to vertical walls as indicated above.
 - TECNOCLAY GEO GRIP/TEX/PRE can be applied in almost all temperatures
 - TECNOCLAY GEO GRIP/TEX/PRE can be cut and perforated, is easy and practical in application by sewing the overlaps together first by stapler, and next nailing to the substrate.
 - The natural sodium bentonite contained in TECNOCLAY GEO GRIP / TEX/PRE guarantees the performance in time, even in conditions of changing watertable. The natural sodium bentonite contained in the geotextile will transform into a "gel", immediately upon contact with water. This is the start of the natural activation of the system that waterproofs the covered structure.

Fields of use TECNOCLAY GEO GRIP/TEX/PRE is especially indicated for waterproofing of underground structures in reinforced concrete, with constant or variable water pressure.

Application SLAB – PRE-CASTING:

Place the TECNOCLAY GEO GRIP/TEX, with the Metal strap PLP side on the surface of the lean concrete casting of the slab. Staple on the overlapped at least for 10 cm and fix to lean concrete with steel nails each 3 m.

Apply an overlap the geo-composite on the formwork for 90% height of the slab thickness. This allows a proper connection when overlapping with geo-composites coming from the foundation walls. If required, a protective concrete coat of 5 cm thickness can be realized: its characteristics will be the same of the following slab.

The installation of a layer of concrete of the same quality of this of the deck is recommended, in order to protect the bentonite surface: such protection may be omitted after assessment of the Project Manager.

Next cast the confinement concrete in accordance with the instructions from the UNI-EN 206 on the exposure classes and respecting the "Guideline for installation of concrete - February 2008".

All construction joints will be sealed with the butylbentonite joint **WAM 101** or **WAM 101 red.- Walls against water partitions / bulkheads and existing structures:** address to our specification or request information to the office U.A.P.P.(Office for Assistance and Promotion of Projects).



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Certified Quality System since **FEBRUARY 1993**

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Remark

1. For installations in contaminated or littoral areas, or where there are or could be groundwater with high concentrations of salts or organic contaminating substances (i.e. : sea-water or hydrocarbons), which could have influence on the expansion properties of the bentonite. In these cases, consult the TECNOCHEM ITALIANA laboratory to confirm the suitability of the system.
2. The structures in concrete must be suited to resist the maximum water pressure. The water pressure on the structure is explained where the waterproofing layer is present.
3. Any bentonite based waterproofing system performs properly only if properly confined. For this reason, the backfill must be done in layers of 50 cm, properly compacted, using fine material, loose, free from stones or putrescible material. Avoid putting anything which might have draining capabilities.

Packaging Rolls of 41,65 m² (2,50 X 16,66 m)

Rolls of 250 m² (5,00 X 50 m)

Technical characteristics (typical values)

Natural sodium bentonite:

• Specific weight	2,65 ÷ 2,75 kg./l
• Montmorillonite content	about 85%
• Expansion to gel with distilled water	≥ 16 times the original volume
• Fluid loss	< 18 %
• pH (in water dispersion of 2 %)	9÷10
• Liquid containment limit	> 500%

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• Surface of one roll	2,50 X 16,66 m	41,65 m ²
• Weight per roll		175 ÷ 180 kg (41,65 m ²) 1.030 ÷ 1.080 kg (250 m ²)
• Thickness (EN ISO 9863-1)		≥ 6 mm.
• Permeability coefficient (ASTM D 5887)		K = 2E-11 m/sec.
• Bentonite per m ² (EN 14196)		≥ 4 kg.
• Swell index		24 ml/2g
• Humidity of bentonite		≤ 15%
• Radial permeability		No transmission
• Tensile strength against geo-textile rupture (ASTM D 6496)		≥ 60 N/10 cm.
• Index Flux / hydraulic flow (ASTM D 5887)		5E-9 m ³ /m ² /s

Safety indications

Read carefully the safety indications on the packaging, or consult the Safety Data Sheet of this product.

The above information is based on our best experiences and lab results and on results of the application of the product in various fields. Tecnochem Italiana is not responsible for negative performances due to not proper use of the product or for defects due to elements not connected with the quality of the product included wrong storage. Technical characteristic in this technical data sheet are up-to-dated periodically. Revision date of this technical data sheet is indicated below.

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TECNOCLAY GEO GRIP/TEX/PRE
pag. 2/2