

FROM DRENOTER® 1,000 TO DRENOTER® -LECA®

DRENOTER* 1,000 drainage modules have been used for years on numerous construction sites throughout Italy as an alternative to gravel aggregates in the construction of modern, safe-to-install, high-performance drainage systems.

Given the excellent results obtained, it was decided to extend the applications of these panels to contaminated sites, where the need to drain water containing hydrocarbons requires a higher chemical resistance than the standard polystyrene.

To adapt the DRENOTER* 1,000 modules to such extreme applications, the following modifications were made:

- Replacement of the polystyrene drainage core with a LECA* expanded clay drainage core
- Moving the hinge from the vertical head to the upper horizontal face to facilitate filling on site.

The result is a certified product that is easy to assemble on site and quick to install:

DRENOTER® -LECA®



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THE LECA DRAINAGE CORE

LECA is an expanded clay with a grain size of 8-20, as shown in Fig. 1

Properties:

- Crush resistance: $\sigma > 0.7 \text{ N/mm}^2$
- Water absorption after 24 hours of immersion: $\text{Cimb} < 20\%$
- Granule shape: rounded-whole

Advantages of use:

Unalterable and resistant over time (does not contain organic materials or their derivatives)

Resistant to acids, bases and solvents, maintaining its characteristics unchanged.

Resistant to compression Natural and environmentally friendly

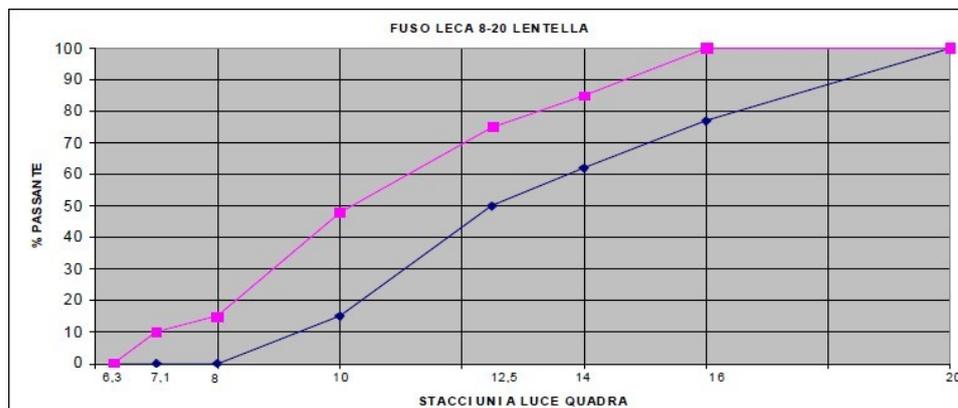


Fig. 1

Sales format

- Polypropylene geotextile lining
- Electro-welded external containment cage
- LECA drainage core (sold separately)

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DRENOTER-LECA FILLING STAGES

STAGE 1: SALES PALLET



STEP 2: OPENING THE MODULES



STEP 3: FILLING WITH LECA



STEP 4: MODULE READY FOR USE



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DRENOTER® LECA®

High hydraulic/mechanical performance drainage module

TECHNICAL SPECIFICATIONS

EXTERNAL CONTAINMENT CAGE

Type: electro-welded square mesh netting
Height: 1,000 mm
Length: 2,000 mm
Thickness: 300 mm
Mesh: 100 mm x 100 mm Tensile strength: 46 KN/m Wire thickness: 2.85 / 3.0 mm
Wire galvanisation: in accordance with EN 10244



COATING GEOTEXTILE

Type: mechanically needled spunbonded continuous filament geotextile Raw material: polypropylene
Weight: between 125 and 155 g/m²
Thickness (at 2 kPa): between 1.0 and 1.2 mm
Water permeability (at 2 kPa): 100 l/m²/s with Dh=50 mm
Effective pore diameter: between 85 and 105 µm
Tensile strength: between 9.5 and 11.5 kN/m
Elongation (long/transverse): 90 / 75 %

GEOGRID COATING ON THE HEADS

Type: square/rectangular mesh with dimensions such as to retain the blocks of the drainage core
Raw material: polyethylene/polypropylene

GEOTEXTILE/GEOGRID BINDING ON THE HEADS

The covering geotextile will be sewn to the geogrid at the ends using multi-strand polyethylene filament and polypropylene monofilament, in order to prevent the drainage material from escaping.

DRAINAGE CORE (LOOSE SHAPED ELEMENTS OF SYNTHETIC RESIN)

Raw material: LECA (expanded clay) grain size class 8-20
Crush resistance $\sigma > 0.7 \text{ N/mm}^2$
Water absorption after 24 hours of immersion: Cimb < 20%
Granule shape: rounded-whole
Permeability: $8.3 \cdot 10^{-3} \text{ m/s}$

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