


MACDRAIN™ 2L GEOCOMPOSITE FOR DRAINAGE

MacDrain™ 2L is a light and flexible geocomposite material which has a drainage core of looped polypropylene filaments. It is covered with a non-woven polyester geotextile on both sides, providing a high drainage capacity. The three components are thermally welded all along the surface. Each side of the geotextile exceeds the edge of the drainage core by 100mm. A continuous surface filtering is achieved by overlapping the butt-joints of the adjacent MacDrain™ 2L strips.

| FLOW CAPACITY | | | | | | | | | | | | | |
|----------------------------|--|-----------------------------|---------|------------------|---------|--|---------|----------|---------|------------------------|---------|-------------------|---------|
| ASTM D4716 | | Horizontal Drainage | | | | | | | | | | Vertical Drainage | |
| Hydraulic gradient | | i = 0,01 | | i = 0,02 | | i = 0,03 | | i = 0,10 | | i = 0,50 | | i = 1,00 | |
| Pressure | | l / s.m | l / h.m | l / s.m | l / h.m | l / s.m | l / h.m | l / s.m | l / h.m | l / s.m | l / h.m | l / s.m | l / h.m |
| 10kPa | | 0,64 | 2340 | 0,70 | 2556 | 0,77 | 2772 | 1,26 | 4536 | 2,17 | 7848 | 2,84 | 10224 |
| 20kPa | | 0,23 | 828 | 0,29 | 1080 | 0,33 | 1224 | 0,74 | 2700 | 1,54 | 5544 | 2,17 | 7848 |
| 50kPa | | 0,11 | 432 | 0,14 | 540 | 0,17 | 648 | 0,41 | 1476 | 0,85 | 3096 | 1,35 | 4860 |
| 100kPa | | 0,04 | 144 | 0,05 | 180 | 0,06 | 216 | 0,12 | 432 | 0,26 | 936 | 0,41 | 1512 |
| 200kPa | | 0,02 | 72 | 0,02 | 72 | 0,02 | 108 | 0,04 | 144 | 0,08 | 324 | 0,13 | 468 |
| PHYSICAL PROPERTIES | | | | | | | | | | | | | |
| | | Standard | | Unit | | Geocomposite | | | | Geotextile | | | |
| Mass per unit area | | ABNT NBR 12563 / ASTM D5261 | | g/m ² | | 700 | | | | 100 | | | |
| Thickness | | ABNT NBR 12569 / ASTM D5199 | | mm | | 11,0 | | | | 0,7 | | | |
| HYDRAULIC PROPERTIES | | | | | | | | | | | | | |
| | | Standard | | Unit | | Geocomposite | | | | Geotextile | | | |
| Open size | | AFNOR G38017 | | mm | | - | | | | 0,145 | | | |
| Permitivity | | ASTM D4491 | | s ⁻¹ | | - | | | | 1,51 | | | |
| Permeability | | ASTM D4491 | | cm/s | | - | | | | 1,1 X 10 ⁻¹ | | | |
| MECHANICAL PROPERTIES | | | | | | | | | | | | | |
| | | Standard | | Unit | | Geocomposite | | | | Geotextile | | | |
| Machine - Tensile Strength | | ABNT NBR 12824 / ASTM D4595 | | kN/m | | 14,21 | | | | 5,26 | | | |
| - Elongation | | ABNT NBR 12824 / ASTM D4595 | | % | | 33,23 | | | | 37,38 | | | |
| Across - Tensile Strength | | ABNT NBR 12824 / ASTM D4595 | | kN/m | | 8,57 | | | | 2,92 | | | |
| - Elongation | | ABNT NBR 12824 / ASTM D4595 | | % | | 37,33 | | | | 36,26 | | | |
| Puncture resistance | | ABNT NBR 13359 / ASTM D4833 | | N | | - | | | | 602,50 | | | |
| ROLL DIMENSIONS | | | | | | | | | | | | | |
| | | Unit | | Geocomposite | |  | | | | | | | |
| Width | | m | | 2 | | | | | | | | | |
| Length | | m | | 30 | | | | | | | | | |
| Area | | m ² | | 60 | | | | | | | | | |
| Diameter | | m | | 0,70 | | | | | | | | | |
| Weight | | kg | | 42,0 | | | | | | | | | |

