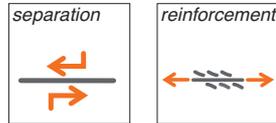


# Sports grounds



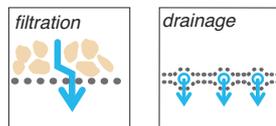
## Separating and filtering soil layers

▲ to separate, filter, and improve bearing capacity, the layers of granular material shall be separated by a thermally bonded, needle-punched nonwoven geotextile of the **Bontec NW optim** type, with an optimal 40% to 50% elongation at break, and a modulus of resistance 20 kN/m for 100 grams at failure, as per NFE-NISO 10319.

▲ thanks to the thermally bonded structure, the pore size in the soil shall be stable for controlled filtration.

▲ the surface of the product shall be slightly rough to increase the “grip” with the soil and improve the bearing capacity.

▲ the manufacturer, with ISO 9001 certification, shall have an engineering department capable of advising the designer and installer.



## Ground draining bases

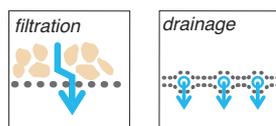
▲ the draining bases shall be executed using a geocomposite of the **teradrain** type consisting of a combination of needle-punched nonwoven geotextiles and a network of regularly spaced 20 mm perforated mini-drains.

▲ the product shall have a filtration opening of 78 µm on the external filtering surfaces, supported at all points by the nonwoven draining core; the whole system shall be self-healing in the event of localized tearing. The vertical drainage capacity of a mini-drain shall be 720 litres/hour. The circular shape of the mini-drains shall enable them to resist very high pressures of 900 kPa in the soil, and not collapse in the long term.

▲ the ultimate tensile strength of the product shall be 28 kN/m with a 45% elongation at break, so as to perform the separation function.

▲ the mass per unit area shall be 650 g/m<sup>2</sup>.

▲ the product must be sized by computation.



## Peripheral drainage trenches

▲ the drainage trenches shall be executed using a geocomposite of the **teradrain RIV** type consisting of a combination of needle-punched nonwoven geotextiles and a network of regularly spaced 20 mm perforated mini-drains.

▲ the product shall have a filtration opening of 78 µm on the external filtering surfaces, supported at all points by the nonwoven draining core; the whole system shall be self-healing in the event of localized tearing. The vertical drainage capacity of a mini-drain shall be 720 litres/hour. The circular shape of the mini-drains shall enable them to resist very high pressures of 900 kPa in the soil, and not collapse in the long term.

▲ the ultimate tensile strength of the product shall be 28 kN/m with a 45% elongation at break, so as to withstand the application tension.

▲ the mass per unit area shall be 650 g/m<sup>2</sup>.

▲ the product must be sized by computation.