

**EN ISO 11058:1999 – Geotextiles and geotextile-related products – Determination of water permeability characteristics normal to the plane, without load (\*)**

*IMPORTANT: This information sheet is not a standard. The full text of the standard can be obtained from your national standardization body.*

(\* an amendment will be published in 2009)

Scope:

This standard specifies two test methods for the determination of the water permeability characteristics of a single layer geotextile (or geotextile-related product) normal to the plane:

- constant head method
- falling head method

Principle:

- Constant head method: a geotextile is subjected to a unidirectional flow of water normal to the plane under a range of constant heads. The water flow, needed to keep the hydrostatic head at a constant level, is calculated. Typically a hydrostatic head of 70 mm is used, plus four additional levels ranging from 20 to 80% of that value.

- Falling head method: a geotextile is subjected to a unidirectional flow of water normal to the plane under a falling hydrostatic head. The time is measured to equalize a head difference of 250 mm.

Number of specimens: 5.

Results

- Constant head method: a flow velocity ( $v_{20}$ ) in m/s (volume per unit of time and area:  $m^3/m^2.s$ )

- Falling head method: a flow velocity ( $v_{20}$ ) in m/s (hydrostatic head difference divided by time)

*Note: Results expressed in litre/m<sup>2</sup>.s correspond to mm/s.*

Comments:

- For control purposes it can be sufficient to determine the constant head flow velocity at a head of 50 mm only.
- This method is temperature dependent; hence all results are corrected to a water temperature of 20° C.
- No indication is given when one or the other method should be used.