

# NorGeoSpec 2002 Product Certificate



## Product Certificate

www.norgeospec.org

No 0711-QC-1190

T 011/340

NorGeoSpec 2002

|  |                     |
|--|---------------------|
| Date:  | 2007-11-13          |
| Valid until:   | 2009-11-13          |
| Manufacturer:  | Johns Manville GmbH |
| Product:   | T 011/340           |
| Applicable to specification profile:   | 4                   |
| Certificate  | No 0711-QC-1190     |
| Certification procedure:   | QC                  |
| Required level of delivery control: 1 identification test for every 50000 m <sup>2</sup> , but minimum 1 id.test for deliveries over 10 000 m <sup>2</sup> |                     |

| Characteristic                |                      | Maximum tolerance (units) | Declared tolerance <sup>1</sup> | Declared value <sup>1</sup> | 95% confidence limit <sup>2</sup> | Certification value |
|-------------------------------|----------------------|---------------------------|---------------------------------|-----------------------------|-----------------------------------|---------------------|
| Tensile strength              | MD kN/m              | -2,4                      | -1,0                            | 24,0                        | 23,0                              |                     |
| EN ISO 10319                  | CMD kN/m             | -1,9                      | -1,0                            | 19,0                        | 18,0                              | 20,5                |
| Tensile strain                | MD %                 | -11,0 %                   | -11 %                           | 55 %                        | 44,0 %                            |                     |
| EN ISO 10319                  | CMD %                | -11,0 %                   | -11 %                           | 55 %                        | 44,0 %                            | 44,0 %              |
| Cone drop diam                |                      |                           |                                 |                             |                                   |                     |
| EN 918                        | mm                   | 3                         | 3,2                             | 16                          | 19                                | 19                  |
| Energy index                  |                      |                           |                                 |                             |                                   |                     |
| EN ISO 10319                  | kN/m                 |                           | 0,0                             | 4,7                         | 4,7                               | 4,7                 |
| Velocity index                |                      |                           |                                 |                             |                                   |                     |
| EN ISO 11058                  | 10 <sup>-3</sup> m/s | -1                        | -1                              | 4                           | 3                                 | 3                   |
| Opening size                  |                      |                           |                                 |                             |                                   |                     |
| EN ISO 12956                  | O <sub>90</sub> (mm) | 0,033                     | 0,033                           | 0,110                       | 0,143                             | 0,143               |
| Mass EN ISO 9864 <sup>3</sup> | g/m <sup>2</sup>     | 34                        | 34                              | 340                         | 306 - 374                         | 306 - 374           |
| Static puncture               |                      |                           |                                 |                             |                                   |                     |
| EN ISO 12236 <sup>3</sup>     | N                    | -390                      | -390                            | 3900                        | 3510                              | 3510                |
| <b>Application profile</b>    |                      |                           |                                 |                             |                                   | <b>4</b>            |

<sup>1</sup>Mean values and tolerances given on a CE document with revision date: The CE document is approved by Notified body ID no: 2006-03-10 0991

<sup>2</sup>The maximum tolerance is applied for determination of the 95% conf. limit when tolerances given on the CE-mark document exceeds the maximum allowable tolerance required in NorGeoSpec 2002. The products are continuously audited to verify that the characteristics fulfils the NorGoeSpec requirements.

<sup>3</sup>The certification values for these characteristics is to be used in delivery control. For the mass per unit area the allowable variation range is given while the minimum value is given for the static puncture strength.

SINTEF is **Notified as a competent body** related to directive 89/106/EEC by the Norwegian Royal Ministry of Trade and Industry

Notified body ID no: 1071

Products: Geotextiles and geotextile related products

Tasks: Inspection/Certification

|   |                  |               |
|---|------------------|---------------|
| Approved by the NorGeoSpec Technical committee 2007-11-13 | Issued by        | Approved by   |
|   | Hanne Louise Moe | Arnstein Watn |