

## TECHNICAL DATA SHEET

# CIDEX<sup>®</sup> 50 SB

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**Construction** (tolerances:  $\pm 10\%$ )

Mesh (Opening between axes) : **40 mm x 40 mm**

Total weight : **206 g/m<sup>2</sup>** (Mode of Operation: from Chomarat Textiles Industries, MO 302/03)

<u>Grid</u>	<u>Non-woven</u>
Glass fibre + Binder (Styren Butadien type*) : 189 g/m <sup>2</sup>	Synthetic fibre : 17 g/m <sup>2</sup>
Thickness ( indicative value ) : 1.1 mm (Control plan from Chomarat Textiles Industries, MO 302/03)	

**Properties:** values + or – 5% according to the standard **ISO 10319** (Mode of Operation from Chomarat Textiles Industries 302/13)

<b>Mechanical strength</b>	<u>At break</u>	<u>at 1% elongation</u>	<u>at 2% elongation</u>
Long direction	<b>50 KN/m</b>	<b>&gt;15 KN/m</b>	<b>&gt; 32 KN/m</b>
Cross direction	<b>50 KN/m</b>	<b>&gt;15 KN/m</b>	<b>&gt; 32 KN/m</b>

<b>Elongation</b>	<u>at break</u>	Junction Strength of transversal and longitudinal yarns, according to GRI-GG2 (USA Aashto 4E-SR): <b>40 KN/junction.</b>
Long direction	<b>&lt; 3% + 0.5%</b>	
Cross direction	<b>&lt; 3% + 0.5%</b>	

*The information contained in this document have been transmitted by our supplier Chomarat Textiles Industries. This data sheet has been issued as an indication; we reserve the right to modify it without notice. Please be sure that you have the updated version.*

**Fatigue properties :** The grid will be tested according to the standard EN 12697-24:2012+A1 annex D for the alternative dynamic 4 point bending test. The size and manufacturing of the structure must follow the standard EN 12697-33:2003+A1.

A symmetric test is done in alternated bending (compression / traction). The samples dimensions and the testing conditions (temperature, frequency, loading configuration ) must respect the fatigue standards 12 697 – 24:2012. It is important to have minimum 3 yarns placed into the long direction sample to get information about the geogrid behaviour.

**For a beam size of 630 x 100 x 100 mm<sup>3</sup>, a deformation between 120 to 150  $\mu$ def, the reinforced structure improves the fatigue life of this structure of 30%** (average value on 3 deformation levels / fatigue straight slope) in comparison with the unreinforced structure.

Strength after lorries running: residual mechanical strength > 85%.\*\*

**Important:** Impregnation capacity of tack coat usually applied: **500 g/m<sup>2</sup>** of residual bitumen. This quantity has to be adapted regarding the characteristics of the support layer. The bond must be checked by the end user.

### Remarks

- Intended uses: Reinforcement.
- UV resistance: Maximum two weeks of exposure after installation (EN 15381 annexe B).
- Bitumen retention (EN 15381 annexe C ) : 120 g/m<sup>2</sup>, therefore 500 g/m<sup>2</sup> to bond the asphalt layers.
- Melting point: resin: 200 °C – Polyester fibres: 220 °C – glass fibres: 1500 °C with mechanical weakness starting at 400 °C.
- In case of use onto a new cement support, use a bituminous tack coat before applying the grid.
- \* Our SBR resin has been developed to give the high elasticity modulus of the grid (>35 000 MPa measured), and has been optimized in order to protect the glass fibres against the mechanical stress during installation and its use at long term .
- \*\* This test consists to simulate the running of a lorry wheel. The LCP rutting apparatus is used., with a wheel weight of 6 tons. A to and fro movement is applied according the standard rutting test. The grid is fixed with a tape onto a smooth asphalt. The result is given after 500 loads.

The grid is produced under the quality management system certified ISO 9001.

<sup>®</sup> Cidex is a brand name of 6D Solutions.

*In addition, as the mechanical constraints applied to the grid, the conditions of application, the quality of the associated materials are beyond our control, this information are valid up to the delivery of the grid and cannot be construed in any way as a warrant after the delivery.*