



Strength after lorries running: residual mechanical strength > 85%.*
 Junction strength to give the reinforcing capacity, and good stress distribution.
 Wide open mesh to get a good bond of the asphalt, especially at the overlaps.

TECHNICAL DATA SHEET

CIDEX[®] 100 SB

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Construction (tolerances : ± 10 %)

Mesh (Opening between axle) : **40 mm x 40 mm**
 Total weight : **400 g/m²** (Mode of Operation: from Chomarar Textiles Industries, MO 302/03)

Grid	Non-woven
Glass fibre + Binder (Styren Butadien type**) : 383 g/m ²	Synthetic fibre : 17 g/m ²
Thickness (indicative value) : 1.4 mm (Mode of Operation : from Chomarar Textiles Industries, MO 302/03)	

Properties: values according the standard **ISO 10319** (Mode of Operation from Chomarar Textiles Industries 302/13)

Mechanical strength	<u>At break</u> ± 5%	<u>at 1% elongation</u> ± 40%	<u>at 2% elongation</u> ± 20%
Long direction	100 KN/m	> 40 KN/m	> 80 KN/m
Cross direction	100 KN/m	> 40 KN/m	> 80 KN/m

Elongation	<u>at break</u>	Junction Strength of transversal and longitudinal yarns, according to GRI-GG2 (USA Aashto 4E-SR): 110 N/junction.
Long direction	< 3% + 0.5%	
Cross direction	< 3% + 0.5%	

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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 mm³, a deformation between 110 to 150 µdef, the reinforced structure improves the fatigue life of this structure of 50% (average value on 3 deformation levels) in comparison with the unreinforced structure (shown in PhD thesis).

Important: Impregnation capacity of tack coat usually applied: **700 g/m²** of residual bitumen. This quantity has to be adapted regarding the characteristics of the support layer. Apply emulsion on top to secure the bond, it must be checked by the end user.

Remarks

- Intended uses: Reinforcement – Stress relief.
- UV resistance: Maximum two weeks of exposure after installation (EN 15381 annexe B).
- Bitumen retention (EN 15381 annex C) : 120 g/m², therefore 600 g/m² 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.
- * Tis 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 the residual strength given after 500 loads.
- ** 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 (cf RGRA 890 from January 2011).

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

[®] 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.