Benefits of GlasGrid

1. a. Environmental friendly and based on a natural product, silica; easily recycled.
   b. Well established technology which ensures uniform products, properties and performance.

2. Easily milled using typical milling equipment. Does not stretch and pull as polymer grids.

3. The high modulus and low elongation maximizes strength utilization under low strain. Minor pavement movement immediately results in stressing of GlasGrid™.

4. Optimizes tensile strength through field and lab performance in order to address potential stress levels that arise in pavement due to loading and thermal stresses.

5. a. **Pressure-sensitive adhesive** promotes a good bond onto a leveling course. Tack coats are optional.
   b. Reduces the sensitivity of the product during application to a range of local environmental conditions.

   These conditions include:

   (i) Ambient conditions (adhesive has been found effective to as low as 5°C).

   (ii) Road surface temperature (adhesive has been found effective in range 5°C to 60°C).

   (iii) Wind conditions.

   (iv) Traffic contamination. The adhesive being applied to only one side, results in a cleaner installation with minimal traffic difficulties.

   (v) The high shear and peel properties of the adhesive allows the access of slow traffic over the reinforcement with limited complications.

   c. Due to the easy and efficient installation of the self-adhesive reinforcement, long lead time, scheduling and traffic details are reduced since the reinforcement may be applied 30 minutes ahead of paving.

   d. Installation procedures have been designed around existing technology. No special equipment is required to install the reinforcement.

   e. Being preapplied, a controlled level of adhesive exists on the product resulting in a predictable application procedure.

*All metric values are nominal.*

**SOLD AND DISTRIBUTED BY:**

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**Features of Fiber Glass**

**General Characteristics**

**Millability**

**Modulus**

**Tensile Strength**

**Pressure-Sensitive Adhesive**
Features of Fiber Glass

Creep

6. No loss of long term performance due to creep. No loss of properties during normal service conditions.

Melt Point

7. The melting point of fiber glass is 1000°C*. Typical paving temperatures will not cause any loss of strength or distortion which may occur with other material.

Coefficient of Linear Thermal Expansion

8. Fiber glass, a silica, has a similar coefficient of linear thermal expansion to aggregates used in overlays. This similarity eliminates the stresses which occur between dissimilar materials, (e.g. PP, PE or PET) during thermal shifts. These thermal shifts occur during paving as the overlay cools, and as a natural occurrence with standard temperature variations which occur overnight and between seasons.

Aging

9. Being an inert material, it has excellent UV and oxidative resistance, which results in excellent aging properties.

Coating

10. a. Coating optimizes the chemical compatibility between the fiber glass reinforcement and the pavement overlay.
   
   b. Designed to protect the reinforcement from mechanical damage during handling and installation.

   c. Developed from polymer chemistry to ensure a long and uniform shelf life for the reinforcement.

Mesh Size

11. Specially designed to balance the need of a hole size opening that allows good mechanical contact between the overlay and the existing pavement while maximizing the contact area between the overlay and the reinforcement. The 12.5mm x 12.5mm mesh size results in a high contact area between the reinforcement and the overlay which allows the efficient utilization of the reinforcement while allowing a hole size sufficient for mechanical locking of the overlay and the underlay through the reinforcement.

Width

12. a. The development of a 1.5m wide fabric, ensures full coverage of two 3.6m lanes with a 25-50mm overlap between rolls and results in minimal waste.

   b. This 1.5m width reduces the problems associated with narrow/patch fabrics.

   c. The width also allows the material to be installed from the back of a standard pick-up truck.

Weight

13. Established through field performance and government guidelines this weight allows for a safe handling of the material in the field.

* All metric values are nominal.