POLYON TEXTILES PVT. LTD.

POLYGRID

PT SERIES FIBRE GLASS GECOMPOSITE GRID

POLYON TEXTILES PVT. LTD.

GEOGRID
INSTALLATION GUIDE
FOR ASPHALT REINFORCEMENT

POLYGRID PT SERIES
FIBERGLASS GECOMPOSITE
GEOGRID GCL & GC

CE
0338-2017

Storage Information:

- Store at temperatures above - 29°C (- 20°F).
- Storage location should be dry, preferably covered and free of dust, dirt and moisture.
- Do not allow excessive mud, fluid concrete, asphalt, or other deleterious materials to get in contact with the reinforcement mesh materials.
- If stored outdoors, the rolls must be covered with proper water proof covering.

Surface Preparation:

- Pavement should be clean, dry and clear of all dust, dirt, and debris.
- Road surface temperature should be between 5 degrees C (40 degrees F) and 60 degrees (140 degrees F) and the surface temperature shall be between 5 degrees (40 degrees F) and 46 degrees C (110 degrees F) if the asphalt surface is less than 24 hours old.
- Seal cracks exceeding 6 mm (0.25 inch) in width using an approved sealant or the appropriate leveling course mix.
- Repair potholes and failed or cracked sections of pavements as instructed by engineer.
- Badly damaged or rough pavement may require milling or the placement of a leveling course.

Tack Coat Application:

- Surface must be between 5 ^{0}C and 60 ^{0}C.
- Always put nonwoven fabric side facing down to facilitate tack coat absorption.
- Apply tack coat uniformly over the prepared asphaltic concrete surface. The application rate is dependent on several factors including existing surface conditions, ambient surface temperature and the materials GCL and GC asphalt retention rate.
- The recommended residual rate of tack coat is 0.6-1.0 Kg/m2 for **GCL** and 1.2–1.8 Kg/m2 for **GC** using a calibrated distributor truck, ensuring that the application rate remains constant.
- **GCL/GC** shall be applied immediately following application of tack coat to achieve optimum bitumen saturation in fabric.
- The tack coat should saturate the geocomposite grid but not bleed through.
- **POLYGRID GEOCOMPOSITE GCL/GC** and tack coat must be installed and applied by trained personals.

Installation Details:

SAFETY PRECAUTION: It is recommended that workers wear gloves and safety glasses while handling fiberglass geogrid.

** IMPORTANT**

- Ensure that the surface is clean and clear of all dust, dirt, and debris

CE

0338-2017

- Ensure that the surface is level so that the geogrid can make solid contact with the base course
- Ensure that ALL surface preparation instructions have been completed as detailed.
- DO NOT place Fiberglass Gecomposite Geogrid on surface when wet, or contaminated with oil, soil or excessive dust.
- DO NOT place asphalt during wet or freezing weather that prevents conformance with specified requirements.
- The width of the tack coat application must extend 75mm (3") beyond the Fiberglass geocomposite geogrid on all sides.

Placement

There are two primary ways that Fiberglass Gecomposite Grid can be placed on an asphalt surface:

A) Mechanical ** Highly Recommended**

- For mechanical installation use a purpose-built lay down frame, or hydraulically controlled device or using a pickup truck that has been modified so the geogrid can be mounted on the back.
- Used for full-width installations but can also be used for detail repairs that are sufficiently large.
- Helps maintain tension during placement and this must ensure that the Fibreglass Gecomposite Grid is held firmly under tension and is pressed firmly onto the sprayed surface.

OR

A) Manual

- Physically placing by hand.
- Used for localized areas of road.
- Unroll the grid onto the sprayed surface and vigorously brush with a stiff broom to ensure a full bond. All the other criteria for mechanical installation apply.

1. Ensure that the geogrid's leading edge is aggressively fastened to the road so that sufficient tension can be applied to the fiberglass geogrid.
2. Roll out the entire length of the geogrid and tension from the end of the roll. Tension should be continually applied until the remaining area of geogrid can be fastened to the road.
3. Overlap transverse joints by 3-6 inches (75-150mm) in the direction of the paver, and overlap longitudinal joints by 1-2 inches.(25-50mm).

- Traffic should be kept to a minimum while the grid is exposed. If travel on the geogrid is necessary, it should be kept below 10 KPH with no sudden stopping or starting.
- Static front wheel turning should be kept to an absolute minimum.
- Any sections damaged by construction traffic must be removed and patched prior to paving.
- Geogrid must be kept free of mud, dust and other debris during construction.

Wrinkle Removal

- Wrinkles and wrap-ins during fiberglass geogrid installation need to be removed. To avoid them ensure that the geogrid is installed under sufficient tension.
- Caution should be taken to ensure that all wrinkles are removed before paving. To remove:

1. Cut the middle of the wrinkle.
2. Lay it back on itself to minimize the amount of differential height in the grid during paving.
3. Aggressively fasten the repair area to eliminate lifting or movement of the grid in that location.

Hot Mix Overlay

- Paving can commence as soon as the bitumen tack coat has fully cured and the Fibreglass Gecomposite Grid has been bonded completely to the pavement.
- The recommended asphalt overlay thickness is a minimum of 40mm (1.5 inches) thick once compacted.

POLYON TEXTILES PRIVATE LIMITED
201, Aniket, C.G. Road, Navrangpura,
Ahmedabad, Gujarat,-380009,(India)
Tel. No. +91-79-26402429, 26468752.
Email : polyon@polyontextiles.com
Web : www.polyontextiles.com

0338-2017