



APPLICATIONS ARMATEX®

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The **ARMATEX®** geogrid require a correct usage and respect of basic procedures, so that there is no damage or destruction to the material before it begins to do its job on a construction site. The geogrid and its function is most frequently damaged during installation and this is why it is necessary that there is no traffic rolling over the newly installed netting and the following recommendations are respected:

STORAGE AND HANDLING:

- the rolls of the geogrid must be stored in a dry, clean and on even surface
- the stack of geogrid should not be more than five rolls high
- the rolls should not be stored in crisscross fashion
- the package is open only before the geogrid immediate use

All networks (gas, sewer, water etc.) must be built and finished before the geogrid is laid, so that there is no damage to the geogrid layers.

APPLICATIONS

Bedding preparation – technique and policy

Reinforcing geogrid **ARMATEX®** is possible laid on the existing surface of pavements old concrete panels, etc.

Reinforcing geogrid **ARMATEX®** is laid:

- in new structures on levelled surface bitumen gravelled mix (under load-bearing layers of mixture) with sprinkled emulsion
- in the whole-area repairs between two bitumen layers, the balancing bitumen tier should be laid as first, the surface must be dry, clean and levelled
- in crack's repairs the pavement's strata is milled

Laying of the **ARMATEX®** as a side layer depends on a good weather, with no rain and with corresponding surrounding temperature (at least 10° C). It is not allowed to lay the geogrid onto a wet (water) surface.

Reinforcing geogrid has to be laid onto even, smooth and profiled surface.

After-milling channels must not be deeper than 3 – 4 mm and have to be purified from impurities arising during the milling. Any bedding's ruptures must be filled in properly. Channels deeper than 3 – 4mm has to be covered by levelling layer.

The ruptures narrower than 3 mm may be cleaned only.

The ruptures larger than 3 mm should be, after cleaning or milling, filled with the corresponding sealing compound (sealing compound, small-grained mineral-bitumen mixture).

To the surface prepared this way, there is deposited an equal joining layer made of the modified, cationic, quickly disintegrating emulsion or hot bitumen.

The features of bitumen emulsion and it's amount have to be suit to conditions which are actually on the site (sort and porosity of surface, way of application, temperature of surrounds, humidity).

Surface under the layer has to be sprinkled with emulsion in amount to fit soak through the textile material (geogrid should be black in all surface but there must not be any pool (puddle) of emulsion on surface). Actually needed amount of emulsion is necessary verify on trial (experimental) sector before making the whole area. Recommended amount of emulsion is about 0,4 to 0,5 kg of dry matter/m², depending on surface structure.

After the solvent evaporation or emulsion disintegration and water evaporating we may immediately accede to the laying of **ARMATEX®** reinforcing geogrid.

APPLICATION OF GEOGRID

Fixing of the geogrid to the surface is recommended with using nailing machine, nails with backs. After that is necessary to sprinkle the surface (with installed Armatex) with asphalt emulsion – modified, cationic, quickly disintegrating emulsion or hot bitumen (approximately 0,3 – 0,5 kg/m²).

The geogrid must be constantly strained about 10 cm per 5 m of the road stage (2%). The straining should be carried out using lath with hangers. The geogrid straps must be properly shortened and cut to segments, which should be done during laying in turns, proportionally to their diameter. If there is such a necessity, it is needed to excavate openings for street inlets, channels, channel covers or any other engineering networks holes to the geogrid, after its straightening and fixing.

For the purpose of prevention of humidity capillary absorption by the fibres of geogrid, it is needed to use 10 cm distances from the road border. Similarly it is indispensable to act during carving holes into the geogrid.

On the laid geogrid, there may be presented only vehicles used for the road repairing works, taking into account that no undue acceleration, braking or cornering is allowed.

During the geogrid laying there must be checked the following:

indication of the individual geogrid rolls with data given in technical specifications

laid tier flatness (with no waviness, folds etc.)

overlapping size of adjoining straps

the layer uninterrupted, including control of mechanical damages occurrence

Laying of mineral-bitumen mixture

The resistance of **ARMATEX®** against high temperatures makes possible to use bitumen mixtures with a high application temperature, which provides very good thickening and their very good tightness. The bitumen mixture tier may be laid immediately after the laying of **ARMATEX®**.

Into the laid geogrid we run with a spreading machine and pour the mineral-bitumen mixture from a front direction. The mixture laying should be carried out in accordance with technological specifications and recommendations from standards. Minimum layer covering geogrid must not be thinner than 40 mm.

In the case of bitumen mixture laying onto solid bedding it is necessary to use aggregate with a low thermal conductivity coefficient. The laid surface tiers must have the same thickness which should be in allowed tolerances. Every layer, both abraded and binding, must be laid at one dash, i.e. without dividing its thickness into two or more separately laid tiers.

During the laying, both laying machines and vehicles working with a bitumen mixture must move slowly, without rapid acceleration and change of drive direction.

On the geogrid not covered, there is prohibited rapid acceleration and braking.

Both longitudinal and transversal construction connections, as well as bitumen mass jointing must not be identical with overlapping.



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