



## Installation Fortrac® 3D as surficial erosion control mattress

- Fortrac 3D offers slope surficial protection from erosion caused by induced by rainfall, runoff and wind. It provides erosion protection and long-term site armoring, and assist in the establishment of vegetation while permanently reinforcing vegetation.
- Site-specific conditions may cause an alternative installation procedure to be adopted. Therefore this installation manual has to be understood as a general guideline for the installation.
- The slope should be stable, properly levelled and free of protrusions.
- Fortrac 3D should be unrolled downwards (from the top to the bottom of the slope) in material machine direction (MD). An installation transversally to the slope inclination might also be possible.
- Install Fortrac 3D by preventing any wrinkles in the material and by guaranteeing an intimate contact between the subgrade and the Fortrac 3D.
- Between two Fortrac 3D panels a minimum overlap of 10 cm should be guaranteed. The overlap should always be carried out in the water flow direction
- Fortrac 3D should be fixed in the slope with fixing bars (i.e., steel bars). As a rule of thumbs,  $\sim 2 \text{ bars/m}^2$  are needed in gentle slope. The properties of the fixing method (i.e., length and diameter) and the number of the required bars strongly depends on the subgrade characteristics. It is recommended to test directly in situ the fixing method before starting the entire installation. Steel bars with a diameter of 6 mm and a length of 30 cm have proven a good performance in previous projects.
- Fortrac 3D should be anchored at the top of the slope. The anchoring method as well as the anchor length ( $L_{\text{anch}}$ ) depend on the in situ conditions (i.e., length and steepness of the slope). As a rule of thumb, an anchor depth of minimum 0.15 m at the top and at the bottom of the slope is recommended. In the anchor trench and in the overlap between the panels, the number of required fixing elements (i.e., steel bars) increases.
- Fortrac 3D could be covered with 2 – 3 cm of top soil and the soil can be sowed afterwards. Another possibility would be to sow the subgrade with the local plants and install the Fortrac 3D on top.