

TENCATE MIRAGRID[®] OVERLAPS ON CURVES AND CORNERS

Prepared by:

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This Technical Note is provided as a guideline for installing multiple overlapping layers of TenCate Miragrid[®] geogrids on curves and corners. The geogrid shall be placed such that roll widths are perpendicular to the wall or slope face. As described below no soil cover is required between overlapping Miragrid[®] layers.

Discussion:

TenCate Geosynthetics does not specify geogrid placement in reinforcement applications, but we do offer recommendations based on current state of engineering practice and also based on results of testing. Standard Engineering practice is to recommend three to six inches of fill material between overlapping geogrid layers to maintain a soil/geogrid frictional interface. At the request of Contractors installing Miragrid[®] in the field in this application, we have had pullout testing performed by an independent testing laboratory to investigate the efficiency of geogrid/geogrid frictional interface of our Miragrid[®] geogrids in a silty sand soil. The geogrids tested were Miragrid[®] 7XT and 8XT. The results of independent testing showed that the pullout resistance of the geogrid, bounded by soil above and below, did not significantly differ from geogrid bounded by soil above and geogrid below (and soil below the lower geogrid layer). The results were nearly identical for confining stresses up to 10 psi. We have also tested the pullout resistance of three overlapping geogrid layers in the same manner, with geogrid layers above and below the center pullout layer, and with soil above and below the upper and lower geogrid layers. The result was the same, that the pullout efficiency of our PVC/plastisol coating on TenCate Mirafi® PET geogrids is so competent that the results are nearly identical to the soil/geogrid interface testing. We can therefore recommend installations with multiple overlapping geogrid layers that do not include placement of fill material between the geogrid layers.

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PRINCIPLE

REINFORCEMENT DIRECTION

INSIDE CORNER







OUTSIDE CORNER







INSIDE CURVE







OUTSIDE CURVE

