

ITEM 17554.30 M - GEOFIBER REINFORCED FILL

DESCRIPTION

Provide and place geofiber reinforced fill material at the locations and within the limits shown on the plans.

MATERIALS

A. GEOFIBERS

Provide certified tested fibrillated polypropylene geofiber strands. Acceptance will be based on meeting the following material properties:

Property	Test Method	Requirement
Polypropylene	ASTM D4101 Group 1/ Class 1/ Grade 2	99.4 %
Fiber Length	Measured	25 mm
Specific Gravity	ASTM D792	0.91 gr/cm ³
Carbon black Content	ASTM D1603	0.6 %
Tensile Strength	ASTM D2256	311 MPa
Tensile Elongation	ASTM D2256	15 %
Young's Modulus	ASTM D2101	4,827 MPa

B. FILL

Provide fill material meeting the material requirements of §203-2.02 C. Select Granular Fill, with the added stipulation that the maximum particle size is 50 mm.

CONSTRUCTION DETAILS

A. GENERAL

Store and protect geofibers prior to installation in accordance with the manufacturer's recommendations. For installation assistance and guidance at the start of construction, provide on-site representatives from the geofiber supplier for a minimum of three days.

B. GEOFIBER REINFORCED FILL MATERIAL PLACEMENT

Prepare the area for the placement of the geofiber reinforced fill to the limits and depths as shown on the plans.

1. PRE-MIX APPLICATION :

Provide a mixer capable of mixing and sufficiently supplying the required geofiber-fill ratio to the satisfaction of the Engineer. Mix and place the material into the repair areas. Hand tamp material into the void areas to fill slope to finished grade.

2. MIX-ON-GRADE APPLICATION :

Place geofibers on the upper surface of each lift in the specific pattern determined by the geofiber-fill ratio. Spread the geofibers uniformly over the lift. Mix the geofibers in to the soil with a minimum of 2 passes with a machine capable of processing the soil. Compact each lift of fill to 95% of Standard Proctor Maximum Density in accordance with the requirements contained in Subsection 302-3.12, Compaction.

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METHOD OF MEASUREMENT

The quantity to be paid for under this item is calculated by the number of cubic meters of geofiber reinforced fill material computed in its final position, placed as required by the plans and specifications within the payment lines shown on the plans, except where revised payment lines are established by the Engineer prior to performing the work.

BASIS OF PAYMENT

The unit price bid for this item includes the cost of furnishing all labor, equipment and materials including site preparation, geofibers, fill, and on-site supplier representation necessary to satisfactorily complete the work as shown on the plans.