

Filtrex[®] Tackifying Agent

Soil Stabilization Technology

TACKIFYING AGENT

Description

Filtrex[®] Tackifying agent is a natural anionic flocculent applied to the surface of Temporary seeding, Slope protection, and Storm water blankets to **reduce surface erosion under sheet flow runoff conditions**. Tackifying agent should not be used without one of these practices and should not be applied within 25 ft (7.6m) of natural waterways (KY TC, 2006). Tackifying agent is recommended for use on any slope and is required for slopes 2:1 and greater. Since it is surface applied, Tackifying agent can be easily used in conjunction with LockDown™ Netting.

Function

Tackifying agent is an anionic, polysaccharide (potato starch based) bio-polymer flocculent that reduces suspended solids and turbidity when surface applied to Temporary seeding, Slope protection, and Storm water blankets. Tackifying agent is a natural material that flocculates negatively charged eroded soil colloids together to form larger aggregates (or flocs) that reduce their propensity to be transported by sheet runoff. Tackifying agent is anionic, which means it has a positive electrostatic charge that attracts negatively charged clay colloids. As soil colloids floc together to form a larger mass and weight they eventually fall out from storm runoff, settle in retained runoff, and are more difficult to transport in sheet flows. Additionally, flocculants can create a surface coagulant which buffers the mobility of soil particulates, reducing their transportability in storm runoff. Tackifying agent does not provide sufficient erosion control to be used without Temporary seeding, Slope protection, or Storm water blanket. Tackifying agent may be surface applied or mixed

with the GrowingMedia™ during installation. Tackifying agent may provide diminishing performance after the first runoff event and therefore require additional applications. For more information on testing and research using Tackifying agent see research summaries in the Appendix.

Performance

Research from the San Diego State University Soil Erosion Research Laboratory on Tackifying agent applied to a bare soil using ASTM D-6459 on 2:1 slopes determined the following:

- Soil loss reduction performance for rain events ≤ 2 in/hr and 0.67 in. was 80%
- Soil loss reduction performance for rain events ≤ 4 in/hr and 2.0 in. was 56%.
- Soil loss reduction performance for rain events ≤ 6 in/hr and 4.0 in. was 41%.
- The USLE Cover Management Factor (C Factor) is 0.59

For more information of this research project see Tech Link 3328.

Installation

1. Where required, Tackifying agent shall be surface applied or broadcast over the entire area of the Temporary seeding/Slope protection/Storm water blanket.
2. Tackifying agent shall be applied at a rate of 2.5 lbs per 1000 sq. ft. (12 g per square m)
3. Tackifying agent shall not be applied within 25 ft (7.6m)) of receiving stream, river, lake, or wetland.

Inspection & Maintenance

Additional applications of Tackifying agent may be added after storm events to decrease suspended solids



and turbidity resulting from future rainfall/runoff events.

If erosion control blanket or vegetation practice where Tackifying agent is used has become severely eroded or failed, the BMP should be replaced or repaired and Tackifying agent should be reapplied.

Method of Measurement

Bid items shall show measurement as Filtrexx® Tackifying agent + Filtrexx® BMP per square ft, per square yd, per square m, per hectare, or per acre installed.

ADDITIONAL INFORMATION

For other references on this topic, including trade magazine and press coverage, visit the Filtrexx® Website at: <http://www.filtrexx.com/resourcespress.htm>.

For research reports not included in the Appendix, visit: <http://www.filtrexx.com/resourcesreports.htm>.

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