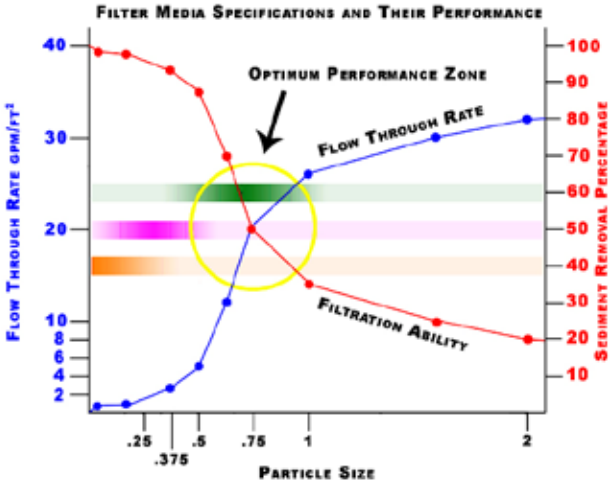
TechLink Research Summary #3330

Alternative FilterMedia™ for Filtrexx® FilterSoxx™ Applications

Filtrexx® FilterSoxx™ are used for a wide variety of sediment control, stormwater filtration, and biofiltration applications. Compost filtration media has historically been the only form of Filtrexx approved filter media; however, new research has shown that non-composted, organic materials may be used in targeted environmental applications. Applications where only sediment removal and hydraulic flow-through conditions need to be achieved may use an alternative organic filter media. Acceptable alternatives include: untreated and non-painted wood pallets, land clearing debris, or tree chips. Research conducted by Filtrexx International has shown that these organic materials will perform as well as compost filter media for sediment control and hydraulic characteristics when Guidelines A through E (listed below) are met. Alternative filter media is not recommended for pollutant removal (other than sediment), bioremediation, or vegetation applications, as these types of organic filter media may reduce the performance of the FilterSoxx™ for these specific applications.



Research conducted by USDA-ARS (Faucette et al, 2006) and the Soil Control Lab, Inc. (Faucette et al, 2006a), have reported strong relationships between hydraulic flow through rate of Alternative FilterMedia™ and sediment removal efficiency. Typically the higher the hydraulic flow through rate the lower the sediment removal efficiency. Both studies reported that larger particle size distributions of FilterMedia™ typically exhibit higher hydraulic flow through rates and lower sediment removal efficiencies.

Organic materials used for Filtrexx FilterMedia™ shall be weed free and derived from a clean, separated source of organic matter. The organic materials shall be free of any refuse, contaminants or other materials toxic to plant growth, animals, or humans. Non-organic products will not be accepted.

Alternative Media Guidelines

A. pH – 5.0-8.0 in accordance with TMECC 04.11-A, "Electrometric pH Determinations for Compost"

B. Particle size – 99% passing a 2 in (50mm) sieve and a maximum of 40% passing a 3/8 in (9.5mm) sieve, in accordance with TMECC 02.02-B, "Sample Sieving for Aggregate Size Classification". (Note- In the field, product commonly is between ½ in [12.5mm] and 2 in [50mm] particle size.)

C. Moisture content of less than 60% in accordance with standardized test methods for moisture determination.

D. Material shall be relatively free (<1% by dry weight) of inert or foreign man made materials.

E. A sample shall be submitted to the Engineer for approval prior to being used and must comply with all local, state and federal regulations.

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