

TRAMFLOC, INC.

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Technical Information Bulletin

TRAMFLOC® 1001E SUPERABSORBENT POLYMER

Product Description

Tramfloc® 1001E is a water absorbing soil conditioner. Tramfloc® 1001E is a homopolymer of sodium acrylate used to absorb and retain large quantities of water and nutrients. Tramfloc® 1001E is supplied as a white powder.

Uses

Tramfloc® 1001E is applied in agricultures, horticulture, forestry, mining and other operations where moisture retention is required. Tramfloc® 1001E has an anionic character and is 100% active with a maximum moisture content of 10 per cent. Tramfloc® 1001E is insoluble in water and functions in the usable pH range of 5-9.

Typical Characteristics

Maximum absorption in weight of retained water per weight of Tramfloc® 1001E is as follows. a) deionized water.....380; b) water with 1000 ppm NaCl.....190; c) in soil, measured under a pressure of 2 atm.....225; d) time to reach 60% of maximum absorption, minutes.....10; e) stability of swollen product in sandy soil, years.....2-4; g) approximate bulk density: 0.8.

Particle Size Distribution	Result	Maximum
% on 20 mesh [$>850 \mu\text{m}$]	0.3	1.0
% on 30 mesh [$850 - 600 \mu\text{m}$]	8.5	10.0
% on 50 mesh [$600 - 300 \mu\text{m}$]	64.7	75.0
% on 170 mesh [$350 - 150 \mu\text{m}$]	25.2	45.0
% on 325 mesh [$150 - 45 \mu\text{m}$]	1.1	2.0
% $< 45 \mu\text{m}$	0.1	0.5
Bulk Density	0.60 – 0.73 g/cc	
Retention Capacity (0.90% saline)	33.0 – 37.0 g/g Minimum	
Residual Monomer	300 - 500 ppm Maximum	
Moisture	4.5 – 5.5	
pH	5.9 – 6.3	

Application Rates

Rates vary according to the conditions of the soils, crops, water supplies, and whether water is from rainfall or irrigation and the quantities and frequencies of watering. General guidelines are: 2-3 kg/m³ in mixed to substrates consisting of sand, peat and compost; 50-100 g/m² in broadcasting, 25-50 kg/hectare.

Packaging, Handling and Storage

Tramfloc® 1001E is available in 25 kgs multi wall bags packed 40 per pallet and in 750 kgs sacks. Storage temperatures should be between 32-100^oF. Unopened bags are hygroscopic and should be stored in a cool, dry place. Shelf life is about 5 years.

Safety and Health

Dry polymer spills should be left dry and swept up at once. Spills of polymer are slippery. Precautions should be taken to prevent them from entering lakes or streams. Tramfloc® Polymer Cleaner 348 can be used to remove residue from equipment and floors. Polymer can be disposed of according to local regulations or treated with an absorbent material, then collected for subsequent legal disposal. Tramfloc® 1001E has been shown to exhibit a low order of toxicity. Nevertheless, precaution should be taken to prevent inhalation, ingestion or contact with skin or eyes. Observing basic industrial hygiene precautions should prevent any health or safety hazards.

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