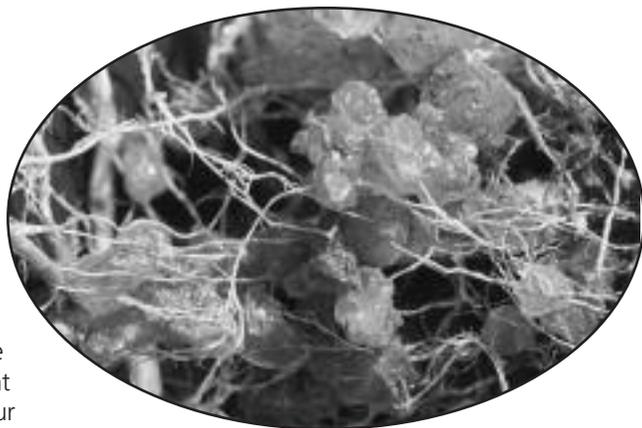


Soil Moist polymer products



Root mass growing around and through the polymer matrix.

Soil Moist polymer products are manufactured in several product formulations. **Soil Moist Plus 7-7-7** is an acrylic copolymer with an 8-9 month timed release 7-7-7 fertilizer. Soil Moist Plus is primarily designed for consumer use in various retail package sizes. However, there are some commercial applications where water management and nutrient requirements are fulfilled by using Soil Moist Plus 7-7-7. Please refer to our technical brochure, form 143 for complete information and application rates.

Soil Moist Plus House Plant Spikes are acrylic copolymers crosslinked with bisacrylamide and manufactured in the shape of a spike. The one inch long spike is available with and without an incorporated 3-4 month timed release 5-5-5 fertilizer. Both types of spikes are manufactured for the commercial and retail trade. The spikes fulfill a need in the commercial nursery and interiorscape industry for prepotted plants. Easy to apply, the spikes eliminate the requirement to poke holes in the soil to apply a polymer to an existing potted plant. They are ideal for hanging baskets and container plants since they tend to dry out very quickly.

Soil Moist Polymer Disks are crosslinked acrylic copolymers crosslinked with bisacrylamide and manufactured in a wafer form. Both the one inch and two inch diameter disks incorporate an 8-9 month timed release 10-10-10 fertilizer. The bisacrylamide is impervious to salts in the soil, water or fertilizer. The disks are ideal for the landscape, nursery and consumer industry. They contain the water storing polymers and timed release fertilizer. Please refer to our technical brochure, form 200/250 and 300 for more information and specific application rates on the Spikes and Disks.

Soil Moist Mats contain water storing crystals woven into a degradable cloth material and are ideal for hanging baskets and containers. **Soil Moist Paks** contain water storing polymer crystals in a premeasured pouch. **Soil Moist Paks Plus** include an 8-9 month, 9-3-6 timed release fertilizer to the polymer crystals. The paks are used for containers, baskets, trees and shrubs. Both the mats and paks take the guess work on how much to apply to a container or plant.

Soil Moist has been developed to assist commercial growers, nurserymen, interior/exterior landscapers in growing and maintaining vigorous plants with fewer plant waterings. Mixed in the soil, Soil Moist absorbs and retains water like a sponge. When the soil begins to dry and there is no longer any capillary water, the stored water is slowly released back to the plant's root system. Three basic polymers which are manufactured for the commercial horticultural industry are: Soil Moist Fines, Soil Moist Granular and Soil Moist Hydro. These polymers do not contain fertilizer.

TECHNICAL:

Environmentally safe, Soil Moist is a synthetic crosslinked copolymer with a potassium salt base. We have modified and controlled the rate at which water is made available to the plant. A particle size distribution has been selected to insure rapid initial uptake of water by a portion of the polymer followed by slower absorption of water by the balance of the polymer. Good initial soaking is required to insure that both the soil and polymer absorb water. Watering routines should be normal for five to seven days. Reductions and watering rates then can be established.

A common complaint associated with some multi-use polymers is their tendency to "float" and work their way up to the surface of the soil when subjected to a heavy watering schedule. Soil Moist polymers negate this problem. The pH of Soil Moist in an aqueous system is approximately 6.2 - 7.0. There are several grade sizes of the granular product available, the two most commonly used sizes are 1000-2000 microns (1-2mm) and 2000-4000 microns (2-4mm). The smaller size, 1-2mm, is used in all applications with specific preferences on amending new turf and potting soils. The coarse grade, 2-4mm, is used mainly for planting trees and larger container stock. Other grade sizes are available, minimum quantities apply.

Soil Moist will absorb over two hundred times its weight in tap water (rated at 160mg. NaCl/liter of water). Lower salts in the water and soil will increase the absorbency. Depending upon the pH of the soil, soil type, amount of organisms in the soil, percentage of salts in the soil and water, Soil Moist will remain and work effectively in the soil for up to five years.

When added to the soil, Soil Moist can reduce the frequency of irrigation by 50%. Based on a rate of 1.7 pounds per cubic yard of soil, the number of days between irrigation increased from six days without Soil Moist to 13 days with Soil Moist. The addition of Soil Moist vastly improves the water holding capacity of the soil by up to 50%. In sandy soils the increases are even higher. In one study, Soil Moist was added at a rate of 1.7 pounds per cubic yard of soil. The solution to saturate the soils was with a fertilizer solution that had an electrical conductivity of 0.55dS/m (0.125% of 20-20-20 fertilizer). The soil was subjected to a pressure of 0.3 psi to remove the less tightly held water prior to the addition of Soil Moist. At this rate and procedure, Soil Moist increased the water holding capacity of the soil by 60% greater than the control.

Soil Moist Fines is manufactured from the same materials as Soil Moist. The particle size and distribution is 50 to 500 microns. Soil Moist Fines are an effective water management aid for the forestry, landscape and nursery industry. They are incorporated in slurry mixes for field planting of bare-root seedlings. They are also used as a packing medium for transporting bare root seedlings. The slurry reduces the evaporation of water on the root structure. **Soil Moist Hydro**, 100 to 700 microns, is used in hydroseeding applications. The polymer increases the moisture retention in the mulch matrix which is more conducive for seed germination. Soil Moist Hydro can be used to amend soils in small containers and mini cell packs. It can be used as a slurry for bare-root seedlings.

BENEFITS:

Soil Moist products are not multi-use polymers that were developed for other industries. Soil Moist potassium based polymers have high water holding capacity under soil pressure, strong gel strength and stability for horticultural applications.

- Increases plant establishment with less plant irrigations
- Reduces transplanting shock
- Helps reduce soil compaction
- Reduces fertilizer leaching while improving moisture uptake in the plant
- Cost effective, effective in the soil up to five years

PRODUCT SELECTION GUIDE

Product	Formulation	Application	Benefits
Soil Moist Polymers			
Granules 1000-2000 microns 2000-4000 microns	Crosslinked polyacrylamide potassium based	Landscaping/ Greenhouse/ Nursery	Reduces plant waterings and transplanting shock. Increases plant establishment.
Soil Moist Hydro 100-700 microns	Crosslinked polyacrylamide potassium based	Hydroseeding/ Bare-root packing medium	Increases turf establishment with less waterings. Reduces shipping cost and plant loss.
Soil Moist Fines 50-500 microns	Crosslinked polyacrylamide potassium based	Bare-root dip/ Packing Medium	Reduces transplant shock. Increases establishment. Reduces shipping cost and plant loss.
Soil Moist Seed Coat	Crosslinked polyacrylamide with graphite compounds	Seed coating/ Drop & Spread seeding	Increases seed germination.
Soil Moist Spikes	Crosslinked polyacrylamide with and without 3-4 month timed release fertilizer	Interiorscaping/ Container plants	Reduces plant waterings. Increases plant establishment.
Soil Moist Disks 1" & 2" Diameter	Crosslinked polyacrylamide with an 8-9 month timed release 10-10-10 fertilizer	Landscaping/ Nursery	Reduces plant waterings Increases plant establishment.
Soil Moist Plus	Crosslinked polyacrylamide with an 8-9 month timed release 7-7-7 fertilizer	Landscaping/ Nursery	Reduces plant waterings Increases plant establishment.
Soil Moist Mats	Crosslinked polyacrylamide Potassium based	Greenhouse/ Landscaping/Nursery	Reduces plant waterings Increases plant establishment.
Soil Moist Paks	Crosslinked polyacrylamide Potassium based	Landscaping/Nursery/ Greenhouse	Reduces plant waterings Increases plant establishment.
Soil Moist Paks Plus	Crosslinked polyacrylamide with 8-9 month timed release 9-3-6 fertilizer	Landscaping/Nursery/ Greenhouse	Reduces plant waterings Increases plant establishment.

For specific application rates on Soil Moist polymers, refer to form 144.

For a complete listing of mycorrhizal products, refer to form 780.

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