HydroFilo is a superabsorbent polymer formulated in water soluble powder. When applied and incorporated in the soil or in any substrate it absorbs and retains large amounts of water (up to 500 times its weight). **HydroFilo** is the result of the chemical union of many copolymers of acrylamide and potassium acrylate and is being produced especially for the improvement of the water management by the plants. This environmentally safe product works by absorbing and storing water and nutrients in an aqueous gel formed by spherical particles which are capable of attributing the retained moisture according to the needs of the plant. The big advantage of **HydroFilo** is the capacity of the formed aqueous gel to release easily the absorbed water and nutrients through the mechanism of osmosis allowing plants to maintain a consistent, ideal moisture and nutrient balance near the root zone. This results in the reduction of the hydric stress which can slow plant growth.

PROPERTIES

- Increases the water holding capacity of soils and as a consequence irrigation frequency is reduced by up to 50%.
- Improves the physical properties of the soil through good aeration which is achieved by the constant swelling and shrinking of the spherical particles of **HydroFilo.** As a result there is an increase of the soil pores.
- Enhances plant growth since water and nutrient uptake is optimized.
- Limits losses of water and nutrients due to leaching and evaporation and also restricts the use of fertilizers.
- Protects the environment against drought and groundwater pollution.

HydroFilo remains active in the soil for almost 5 years. It will gradually biodegrade by 10-15% every year due to ultraviolet radiation and microbial action but is not affected from the changes in environmental temperature. **HydroFilo** works well in soils and substrates with normal pH (pH 6-8) when the irrigation water is of normal hardness. On the contrary when water hardness is high (many salts-high conductivity) and also when pH of soil or substrate is below 5, the water absorption capacity of the product is reduced.

COMPATIBILITY

HydroFilo is compatible with fertilizers and pesticides. Since **HydroFilo** holds fertilizer just as it holds water, you must reduce the quantity of the applied fertilizers by up to 50% to avoid burning your plants.

PRECAUTIONS

It must not be inhaled or swallowed. Avoid all contact with mouth, skin and eyes. After use wash thoroughly your hands and every other exposed body part before meals. Keep in original container and store in a dry and cool place. Keep out of reach of children, pets and away from foodstuffs. If spilt wipe the powder without flushing water.

Water soluble Powder for Water Retention for all types of soil and substrate

HydroFilo

Reduces watering frequency by 50%

Net weight : 100 g

Produced by

HUMOFERT

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APPLICATION - APPLICATION RATES

HydroFilo is efficient for hanging baskets, ornamental gardens, lawns, flowerbeds, parks, trees, bushes and horticulture. The general application rate of **HydroFilo** is 1-3 g per liter of soil or substrate. It is necessary to ensure a good mixing and a full incorporation of **HydroFilo** in the soil (by hoeing or sowing) and water liberally right after application to allow the product to activate.

Directions for application in the soil: For small areas (small gardens, containerized plants, landscaping etc.) the quantity that will be applied is determined by the volume of surface application, by the depth that the roots are expected to reach and by the type of the soil (free draining soil, medium soil, water retention soil) according to the next table:

Quantity of HydroFilo that must be incorporated in the soil (g per m^2)

Depth of* Incorporation	Free draining soils	Medium soils	Water retention soils
5 - 10 - 15 - 20 cm	100 - 200 - 300 - 400	50 - 100 - 150 - 200	10 - 20 - 30 - 40

** Depth of normal root growth of the crop to be grown*

For large areas (big gardens, parks, trees, horticulture etc) it is more economical to apply only around the root of plants or in rows. In this case apply **HydroFilo** in the planting row or in a small furrow around the root and in a range not bigger than the plant's shadow. The depth will be determined according to where the roots are or are expected to reach. Apply at a rate 10-100 g/100 m of row according to the type of the soil. Then cover the furrow with the removed soil.

In any case after the application **HydroFilo** must be incorporated in the soil. Also water liberally.

Directions for application in pots: Application rate: Small pots 5-20 g Medium pots 20-40g Big pots 40-80 g

For established plants in pots open small holes or furrow around the main shoot or trunk in the middle of the distance between the trunk and the perimeter of the pot. The depth of the holes or of the furrow must be equal to the depth of the roots. Apply the required amount of **HydroFilo** in the holes or in the furrow, cover with soil and water thoroughly in order to activate the product.

For plants that are going to be established in a pot, mix the required amount of **HydroFilo** with the total amount of soil which is going to fill the pot. Cover the pot with soil up to 2/3 and establish the plant. Cover the plant with the rest of the treated soil and water thoroughly until the product is activated. **HydroFilo** will reduce transplanting shock and the resultant growth check.

Directions for turf that is going to be established: Apply 10-20 **HydroFilo** per m^2 and incorporate it well in the substrate by hoeing or sowing at a depth 5-8 cm. Then plant, fertilize and water thoroughly the substrate. Use a higher rate for free draining sandy soils.