

Technical Data Sheet

POLYGRAIN

Water and nutrient retaining soil conditioners to improve the water and nutrient availability for plants in soils and substrates for arable crops, vegetable, fruit, and wine production, as well as in forestry, gardening, and landscaping.

Product properties

POLYGRAIN increases in the rootzone plant available water holding capacity, aeration balance and structure of soils, substrates, and potting mixes.

This is because **POLYGRAIN** act as water trap in the root zone of the plant by absorbing big quantities of water and plant nutrients dissolved in it. . At the same time, it is preventing water and nutrient losses due to deep percolation, evaporation, and leaching. In this way it increases the plant available water holding capacity, cation exchange capacity, aeration balance and structure of arable soils, plant substrates and potting mixes. Consequently, water and nutrients are available to the plant for a longer time period, resulting in stronger and healthier plant growth even under hot and dry climatic conditions.

The so obtained increase of the water and nutrient use efficiency allows a reduction of the irrigation frequency combined with lower fertilizer application rates and thus fertilizer and irrigation costs.

Furthermore, **POLYGRAIN** increases soil porosity and enhances the water infiltration rate of soil to an extent, that surface water runs off and soil erosion can be significantly reduced.

Product performance parameters

Physical properties	POLYGRAIN
Components	Plant cellulose, crosslinked potassium polyacrylate, water soluble NPK starter fertilizer
Appearance	Free-flowing, white granules
Particle size distribution [mm] – Test method WSP 220.2(05)	1,0 - 4,0
Bulk density [g/l]	600 + / - 100
Solubility	Insoluble in water - swell to gel upon contact with aqueous solutions
pH-value (1g/l H ₂ O)	6.0 - 8.0
Water content	< 8 %
Absorption - under free swelling conditions	
1) Deionized water – Test method: WSP 242.2(05)	> 140 [g/g]
2) Tap-Water (dH = 11°) - Test method: WSP 242.2(05)	> 90 [g/g]
3) Soil solution - LUFA standard soil 2.1 + deionized water	> 100 [g/g]
Toxicology / Ecology	Nontoxic for humans, plants and soil organisms and does not pollute ground water according to OECD - Test
Residual monomers acrylic acid [mg/kg] – Test method WSP 210.2(04)	< 600 [mg/kg]

Packaging

POLYGRAIN is available in the following packaging:

	25 kg bag ¹⁾ , 750 kg pallet (30 x 25 kg)
	5 kg bucket, 480 kg pallet (96 x 5 kg)

¹⁾ Paper bag with polyethylene liners

Customs tariff number:

3105 20 90

Storage

It is recommended to store **POLYGRAIN** in closed bags, at room temperature and under dry and sun-protected conditions.

Safety instructions

Products contain polymers. Keep out of reach and sight of children and pets. Do not ingest or pour it down a drain. During application nearby a surface water a minimum distance of 10 m must be maintained. All safety instructions according to VO (EG) Nr. 1272/2008 and the safety data sheet on www.greenlegacy.at/download-data.

Hazardous goods classification

Information concerning

- classification and labelling in conformity with the regulations for the transport of hazardous goods.
- protective measures for storage and handling.
- measures in case of accidents and fire.
- ecological and toxicity effects.

is given in our material safety data sheets on www.greenlegacy.at/download-data.

For further information please visit our website www.greenlegacy.at or e-mail us at office@greenlegacy.at.

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