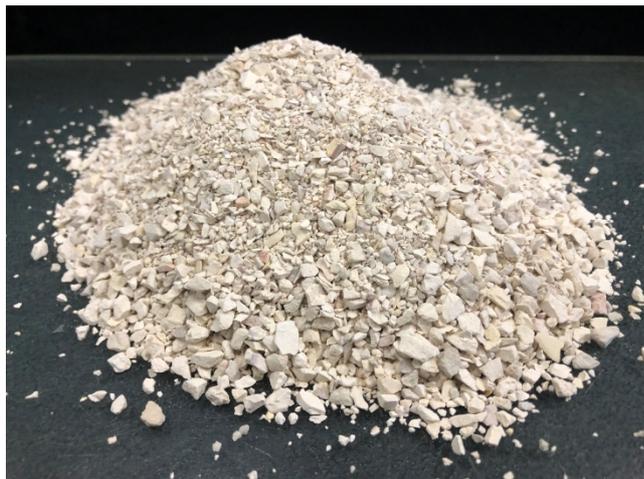


GRANULATED AMORPHOUS SILICA

Product Description[†]

Our Granulated Amorphous Silica (GAS) is non-toxic and non-carcinogenic and is simply produced by crushing and screening the raw, mined product. Our typical GAS has a particle / aggregate size of between 5 mm and 0.8 mm, with 50 % of the product occurring between 2 mm and 1 mm. Although this is our typical granule size distribution, our crushing and screen plant is modular in design allowing for customised screen sizes between 75 mm and 0.8 mm to be accommodated.



Applications

- Hydroponics:
 - Growth Substrate (Drip, Flood & Drain Methods; Plant Germination & Growth)
- Horticulture & Agriculture:
 - Soil Improver (increase water holding capacity)
 - Plant Improver (increase disease resistance and shelf life of produce)
- Aquaculture:
 - Filter medium to improve water quality

Physical and Hydraulic Specification[†]

Appearance	Off White	Total Porosity (%; v/v)	60-65
Type	Granular	Field Capacity (%; v/v)	50
Granule Size (mm)	5 – 0.8 [‡]	Plant Available Water (%;v/v)	27**
Particle Density (g/cm ³)	1.9 – 2.2	Saturated Hydraulic Conductivity (m/day)	2-5
Loose (Packed) Bulk Density (g/cm ³)	0.7 – 0.8		
Moisture Content (%)	<4.0	Reactivity	Non-Swelling Non-Slaking Non-Plastic
Surface Charge	Negative		
		Point of Zero Charge (PZC)	pH 2.6

[‡]Can vary from 75mm to 0.8mm. <10% silt + clay; **Field Capacity (10kPa) – Permanent Wilting Point (1,500kPa).

Chemical Specification[†]

pH (1:5 water)	8.5	SiO ₂ (%; Total)	86
Electrical Conductivity (EC) (1:5 water)	<40*	Al ₂ O ₃ (%; Total)	7.2
Cation Exchange Capacity (CEC; meq/100g)	>30	CaO (%; Total)	1.3
Nitrogen (%; Total)	<0.1	Fe ₂ O ₃ (%; Total)	0.8
Phosphorus (%; Total)	<0.2	MgO (%; Total)	0.3
Sulphur (%; KCl extractable)	<0.1	LOI (%)	4.7
Plant Available Silicon (PAS; %)	0.1 [‡]	Organic Matter (%; w/w)	0.22
Copper (mg/kg)*	0.2	Manganese (mg/kg)*	4.3
Zinc (mg/kg)*	1.0	Boron (mg/kg; Total)	7

*EC after flushing. [‡] Measured by the calcium chloride extraction method (1:100 extraction ratio). * DTPA Extractable.

[†] Typical analysis specified. Given the heterogeneity of the material the actual properties of the material may differ from those specified in this document. The information contained in this Product Specification Sheet is given in good faith, and may not be interpreted as a binding specification or representation.