

59980 Volcano Ash

light – inert – ecological

Description

Volcano ash is a microcellular, expanded volcanic rock. This filling agent belongs to the aluminium silicates. Due to its composition it has a high packing density and a higher binding strength than conventional micro-hollow spheres.

Properties

Pure white; low specific weight; irregular multi-cellular form; free-flowing; inert; chemical resistant; odorless; frost resistant; non-pollutant, fire-proof.

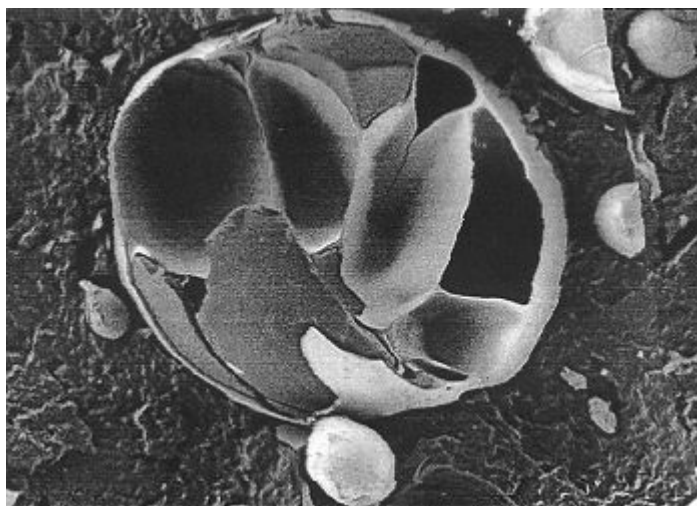
Advantages

Low density and therefore a weight reduction of the final products; reduced demand of binding agents resp. resins; improved thermal and sound insulation; decreased shrinkage; improvement of the mechanic characteristics of the final product and an increase of the chemical resistance; low water absorption; fire-proof; temperature-shock-resistant and dimension stable; high degree of whiteness.

Application

Due to its general shear and impact sensitivity, the volcano ash should be worked into the aqueous and synthetic resin systems as the last component. Short mixing times reduce the breakage rate significantly.

In aqueous systems (amongst others dispersion paints, plasters) the volcano ash should be added after dispersing the pigments and fillers. When using dissolvers, a low revolution speed should be used.



Average Technical Data:

Typical chemical analysis:

SiO ₂ (bound)	73 %
Al ₂ O ₂	17 %
CaO	1 %
K ₂ O	5 %
Na ₂ O	3 %
Other elements	traces
Surface humidity	< 2 %
pH-Value	6,5 – 7,5
Free silica dust	none
Gas filling	air

Sieve analysis

Particle size	5 – 150 µm
Ø Particle size	45 µm
Typ. distribution :	
> 290 µm	-
150 – 290 µm	max. 3 %
74 – 150 µm	23 %
< 74 µm	74 %

Physical Data

Effective density:	0.23 g/cm ³
Density:	135 kg/m ³
Surface treatment	possible
Melting temperature:	1260°C
Color:	pure white
Heat co-efficient:	0.057 W/mk

Application

Volcano ash can be used for following products:

Polyester resins, epoxy resins, phenol resins and polyurethane, sealing and filler compounds; undersealant and PVC-plastisols, structural paints and plasters, mortar, self-flowing pavement, insulation coatings, artificial marble and foams, synthesized rubber, fire-proof compounds, adhesives, Sandwich-panels.