



FILLITE

Low Density Silicate Spheres

Fillite is a glass hard, inert, hollow silicate sphere. It is primarily used to reduce the weight of plastics, rubber, resin and cement etc. It also imparts further benefits in many situations. Due to spherical nature of the particles, increased filler loading and improved rheology can be obtained.

FEATURES

- **Low density**
- **Chemically stable**
- **High strength to weight ratio**
- **Spherical Particles**
- **Excellent compatibility with most resins**
- **High filler loading possible**

PROPERTIES

Parameter	Quantity
Shell	
Alumina as Al_2O_3	27% – 33%
Silica as SiO_2	55% – 65%
Iron as Fe_2O_3	4% Max
Gas	
Carbon Dioxide, CO_2	70%
Nitrogen, N_2	30%
Average Particle Density	0.60 – 0.80 g/cm ³
Average Bulk Density	0.35 – 0.45 g/cm ³
Packing Factor	60% - 65%
Hardness	Mohs Scale 5
Average wall thickness	5% - 10% of sphere dia
Particle size	5 – 300 micron
Particle below 150 micron	60% - 90%
Melting Temperature	1200 – 1350 °C
Thermal Conductivity	0.11 W/mK
Coefficient of Thermal Expansion	$0 < = 8 \times 10^{-6}$ (K)
Surface Moisture	0.3 % Maximum