NANOPOOYESHYEKTA

Hydrophobic Silica

Hydrophobic silica is a form of silicon dioxide with hydrophobic groups chemically bonded to the surface. The hydrophobic groups are normally alkyl or polydimethylsiloxane chains.

Hydrophobic silica displays water resistant properties because of its nanostructure and chemical properties. When applied to a surface of a material, the nanoparticles adhere to the host material and prevent liquids from permeating the rough texture. The water only comes into contact with the tips of the nanoparticles coating the outside of the material.

Property	Quantity
Appearance	High-dispersive white powder
Hear reduction (%) (105 °C 2 h) ≤	3
Loss of ignition (%) (950 °C 2 h) ≤	6
SiO_2 content (dry base) (%) ≥	92
SiO_2 content (%) (950 °C 2 h) ≥	99.8
Specific surface area (m_2/g)	100 ± 25
pH value	6.5–7.5
Surface density (g/ml) ≤	0.15
Dispensability (%) (%) (CCl_4) ≥	80
Oil-absorbed value (ml/100 g) ≥	250
Average particle size (nm)	10–25
Hydrophobicity	Strong