OCHNOLOGY SOLUTION PVT. LTD
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Product Data Sheet

Microsilica (Silica Fume) 96U — Undensified Grade

Description

Description	Microsilica 96U (Silica Fume) is a premium ultra-fine amorphous silicon dioxide powder, a by-product of silicon metal and ferrosilicon alloy production. With a minimum SiO_2 content of 96%, it is highly reactive during sintering and delivers superior ceramic bonding and densification performance.
Applications	Premium castables, low and ultra-low cement castables (ULCC), gunning mixes, shaped and unshaped refractory materials, high-performance concrete, grouts, and shotcrete requiring highest SiO_2 purity.
HS Code	28112200
Grade	96U – Undensified

Key Benefits

1. Superior purity – SiO_2 min. 96%, lower impurity burden for demanding castable formulations
2. Improved flow – easier to cast in low and ultra-low cement systems
3. Enhanced particle packing – denser, stronger castables
4. Gelification (coagulation) in gunning mixes
5. Improved hot-strength properties and reduced permeability
6. Very low alkali and iron content – suitable for critical refractory and concrete applications

Chemical Analysis & Physical Data

Chemical Composition (Weight %)

Parameter	Unit	Specification	Typical Value
SiO_2	wt%	Min. 96.0	96.5
Al_2O_3	wt%	Max. 0.50	0.27
Fe_2O_3	wt%	Max. 0.20	0.09
CaO	wt%	Max. 0.50	0.29
MgO	wt%	Max. 0.50	0.25
K_2O	wt%	Max. 0.50	0.23

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Na_2O	wt%	Max. 0.30	0.11
TiO_2	wt%	Max. 0.05	0.01
P_2O_5	wt%	Max. 0.10	0.02
H_2O (when packed)	wt%	Max. 1.5	—

Physical Properties

Property	Unit	Specification	Typical Value
Loss on Ignition (LOI)	%	Max. 2.0	1.16
Coarse Particles (>45µm)	%	Max. 2.0	—
pH-value	—	5.0 – 8.5	—
Bulk Density (when packed)	kg/m³	250 – 400	350
Specific Surface Area (BET)	m²/g	15 – 25 (typical)	—

** Specifications are guaranteed values. Typical values are representative batch results. Test methods available on request.*
HS Code: 28112200

Packaging

Packaging

600 kg Jumbo Bags (FIBC / Big Bags)
25 kg Small Bags (multi-wall paper / PE-lined)
Custom packaging available on request.

Storage & Handling

7. Avoid dust generation – use appropriate PPE when handling
8. Store material properly, protected from moisture and contamination
9. Keep bags sealed until point of use
10. Store in a dry, covered area away from direct sunlight