



# SILCON UDDYOG

## Technical Data Sheet

### Product Name: SILCON Microsilica

#### Description:

Microsilica (silica fume) is a undensified admixture which consists primirily very fine amorphous SiO<sub>2</sub> particles and meets ASTM C-1240 standards, Microsilica is used in construction, construction chemicals and refractory industries.

<b>Chemical Composition:</b>		<b>Physical Properties:</b>	
Silicon Dioxide (SiO <sub>2</sub> )	92.60%	Specific Gravity :	2.89 gm/ml.
Aluminium Oxide (Al <sub>2</sub> O <sub>3</sub> )	0.30%	Bulk Density :	0.49 gm/ml.
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1.20%	Hardness (pH Value):	5.5 to 7.5 Moh Scale
Calcium Oxide (CaO)	0.30%	LOI (at975°C):	3.82% max
Magnesium Oxide (MgO)	0.20%	Solubility	3.4% max
Posphorous (P <sub>2</sub> O <sub>5</sub> )	0.10%	BET	min. 15-28 m <sup>2</sup> /gr (gerçek 23,36 m <sup>2</sup> /gr)
Carbon ( C )	0.70%		
Potassium Oxide(K <sub>2</sub> O)	0.30%	<b>Partical Size:</b>	
Sodium Oxide (Na <sub>2</sub> O)	0.20%	Retained on 45 micron:	5.31%
Sulfur Trioxide (SO <sub>3</sub> )	0.30%	Pass through 45 micron:	94.69%
Chlorine (Cl)	0.10%		
Moisture (H <sub>2</sub> O)	0.70%		

#### Application areas:

- Ready mixed concrete and grout
- Refractory industry
- Offshore and marine structures
- Dams, tunnels, bridges and motorways
- Industrial floors
- Shotcrete applications
- Concrete pipes
- Precast ve prefabric industry
- High rise buildings

#### Advantages:

- **Strenght:** Compresive and flaxural strenght increased significantly
- **Permeabilty:** reduced by of 10 or more
- **Chloride ion penetration:** Reduced diffusion of chloride ions by a factor of 3 or more
- **Reinforcement corrosion inhibitor:** Electrical resistivity increased by more than 500%
- **Chemical resistance:** sinnificantly improved
- **Sulphate resistance:** equivalent to or beter than sulphate resistant cement
- **Alkali silica reactivity:** close to total suppression
- **Abrasion resistance:** greatly increased
- **Shotcrete:** rebound reduced by 50% or more and compaction, strenght and cohesion enhanced
- **Durability:** dramatic increase in service life of concrete in all aggressive/chemical/ marine environments.

#### Storage and shelf life:

Shelf life too long when stored in dry warehouse conditions above 2°C is unlimited.

#### Packaging:

20kg, 25kg, 50kg And 1150 kg big bag OR OPT.