

## Technical Data Sheet

Product Name : Amosil Microsilica

Microsilica (silica fume) is a undensified admixture which consists primarly very fine amorphous  $\text{SiO}_2$  particles and meets ASTM C-1240 standards Microsilica is used in ready mix concrete (RMC) and refractory industries.

Chemical Composition:		Physical Properties:	
Silicon Dioxide ( $\text{SiO}_2$ )	92.45%	Specific Gravity :	2.89 gm/ml.
Aluminium Oxide ( $\text{Al}_2\text{O}_3$ )	2.45%	Bulk Density :	0.49 gm/ml.
Iron Oxide ( $\text{Fe}_2\text{O}_3$ )	1.20%	Hardness :	1.5 Moh Scale
Calcium Oxide ( $\text{CaO}$ )	1.30%	LOI (at $975^\circ\text{C}$ )	3.82% max
Magnesium Oxide ( $\text{MgO}$ )	0.20%	pH Value & Solubility	5 & 3.4% max
Posphorous ( $\text{P}_2\text{O}_5$ )	0.10%	BET	min. 15-28 $\text{m}^2/\text{gr}$
Carbon ( C )	0.70%		(gerçek 23,36 $\text{m}^2/\text{gr}$ )
Potassium Oxide ( $\text{K}_2\text{O}$ )	0.30%	<b>Partical Size:</b>	
Sodium Oxide ( $\text{Na}_2\text{O}$ )	0.20%	Retained on 45 micron:	5.31%
Sulfur Trioxide ( $\text{SO}_3$ )	0.30%	Pass through 45 micron:	94.69%
Chlorine (Cl)	0.10%		
Moisture ( $\text{H}_2\text{O}$ )	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:

- Streght: Compresive and flaxural streght 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: Significantly 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, streght 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  $2^\circ\text{C}$  is unlimited.

### Packaging:

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