

# WHITAKER MICROSILICA

## Technical Data Sheet

### DESCRIPTION:

**Whitaker Microsilica** is a superfine pozzolan (100 times finer than cement), with a beneficial effect for concrete.

Reacting with the liberated lime, from the water/cement reaction, **Whitaker Microsilica** improves the strength and durability of concrete:

### TYPICAL BENEFITS OF WHITAKER MICROSILICA:

- Increase both the compressive and tensile strength of concrete.
- Improves concrete resistance to abrasion.
- Reduces water permeability.
- Prevents alkali-silica reaction in concrete.

### USES:

Principle uses of **Whitaker** concrete includes: concrete slabs, pavements, driveways, kerbs, pipes, overlays, patch repair, thin section walling, concrete block, marine concrete, heavy industrial floors, etc...

### COMPATIBILITY WITH OTHER ADMIXTURES AND CEMENTS:

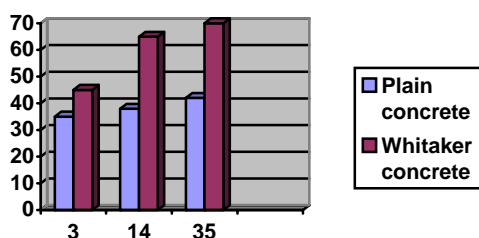
**Whitaker Microsilica** can be used with all types of cement and is compatible with all admixtures.

**Whitaker Microsilica** meets the requirements in the Standard Specifications for Microsilica (Silica Fume) – ASTM C 1240-95a and the Norwegian Standard NS 3045.

**Whitaker Microsilica** is not characterized as dangerous to the environment.

### STRENGTH COMPARISON:

- Indicative strength comparison between plain concrete and Whitaker concrete at 3 days, 14 days and 28 days



### TYPICAL TECHNICAL AND PHYSICAL PROPERTIES:

Bulk Density	:	800 kg
SiO <sub>2</sub>	:	min. 90%
SO <sub>3</sub>	:	max. 2%
C	:	max. 2.5%
C1	:	max. 0.1%
LoI	:	max. 3%
Particles + 44 micron:	:	max. 3%
Specific Surface Area:	:	min 15 m <sup>2</sup> /gr.
Particle shape	:	Angular
Colour	:	Light grey

### PACKAGING:

**Whitaker Microsilica** is available in jumbo bags of 1,000-1,700 kg.

### STORAGE:

Should be stored in dry conditions, similar to cement.

### TECHNICAL ADVICE:

The technical Department is available to assist you in the correct use of our material and its resources are at your disposal entirely without obligation.

### SAFETY PRECAUTIONS:

*Information contained in this data sheet is based on knowledge considered to be true and correct and is offered for the user's consideration, investigation and verification, but we do not warrant the results to be obtained. No statement, recommendation or suggestion is intended for any use which will infringe any patent or copyright.*

**Whitaker Microsilica is marketed in the Gulf Region by:**



GULF CONCRETING PRODUCTS  
P.O. Box 43010 Abu Dhabi ; 50012 Fujairah, UAE  
Tel. No. +971 2 6273998 | Fax No. +971 2 6273994  
Email: [info@gcpuae.ae](mailto:info@gcpuae.ae) | Website: [www.gcpuae.com](http://www.gcpuae.com)



CROWN CONCRETING PRODUCTS  
P.O. Box 43010 Abu Dhabi, UAE  
Tel. No. +971 2 6273998 | Fax No. +971 2 6273994  
Email: [info@gcpuae.ae](mailto:info@gcpuae.ae) | Website: [www.gcpuae.com](http://www.gcpuae.com)



# SAFETY DATA SHEET

## 1. PRODUCT IDENTIFICATION

Product Name: Microsilica  
Synonyms: Silica Fume  
Manufacturer: Whitaker Structural Chemicals

## 2. HAZARDOUS INGREDIENTS:

NAME	CAS#	% by wt.	OSHA PEL (Mg/m <sup>3</sup> )	ACGIH TLV
Silicon Dioxide (SiO <sub>2</sub> )	69012-64-2*	80-95	80 per % SiO <sub>2</sub>	2.0 resp fract.
Magnesium Oxide (MgO)	1309-48-4	0.1-5.0	15 total dust (5 resp fract)	10 Total dust
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1309-37-1	0.1-5.0	10 total dust	5.0 Total dust
Carbon Total (C)	1333-86-4	<3.0	3.5 total dust	3.5 Total dust
Calcium Oxide (CaO)	1305-78-8	<2.0	5.0 total dust	3.5 Total dust

\* UVCB Material

## 3. PHYSICAL DATA

Specific Gravity: 2.2 – 2.5  
Melting Point: 2300 °C  
pH: 6.0 – 9.0  
Solubility in Water: Insoluble

## 4. FIRE & EXPLOSION DATA

Extinguishing Media: This dust is non-combustible (even when in a dust cloud)  
Flash Point: N/A  
Explosive Data: N/A

## 5. HEALTH HAZARD INFORMATION

Inhalation: If inhaled to excess remove victim to ventilated area  
Skin contact: N/A  
Eye Contact: Flush eyes with water and carefully rinse under eyelids. If irritation persists contact a physician.  
Ingestion: If victim is conscious, give large quantity of water. Get medical attention.

## 6. REACTIVITY DATA

Stability: NFPA Code 0. Stable  
Incompatibilities: Silica fume is soluble in hydrofluoric acid

## 7. TOXICOLOGICAL PROPERTIES

Routes of entry: Inhalation – Yes ; Skin – N/A ; Eyes – Yes  
Symptoms of exposure: Coughing, sneezing and/or eye irritation  
Acute and chronic toxicity: NFPA Code 1

- Airborne dust generated through the use or handling of this product may result in respiratory and/or eye irritation
- Avoid prolonged exposure to concentrations above exposure limit, unless protective equipment is used.
- Prolonged skin exposure may cause drying of exposed skin

Carcinogenicity: NTP: No IARC monographs: No No OSHA Regulated: No  
Not classifiable and human carcinogen (group 3) ; human evidence –  
inadequate, animal evidence – inadequate.

---

## 8. SPECIAL PROTECTION INFORMATION

Personal Protection: Provide general ventilation. See ACHIH ventilation in dusty areas. Use  
NOISH approved dust/mist respiratory protection. Wear safety goggles  
and gloves.

Handling Methods: Prevent airborne emissions.

Spilled and disposal procedures: Due to its small particle size, high efficiency vacuum cleaning is  
recommended to recover spilled material. Dispose in accordance with  
federal state and local regulations.

---

## 9. Other Information

Literature references are available upon application to the manufacturer.

*To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever  
for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the  
sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain  
hazards are described herein, we cannot guarantee that these are the only hazards which exist.*

Whitaker Microsilica is marketed in the Gulf Region by:



GULF CONCRETING PRODUCTS  
P.O. Box 43010 Abu Dhabi ; 50012 Fujairah, UAE  
Tel. No. +971 2 6273998  
Fax No. +971 2 6273994  
Email: info@gcpuuae.ae



CROWN CONCRETING PRODUCTS LLC  
P.O. Box 43010 Abu Dhabi, UAE  
Tel. No. +971 2 6273998  
Fax No. +971 2 6273994  
Email: crown@gcpuuae.ae