



## HIND SILICA M (S)

### PRODUCT DATA SHEET

#### MICROSILICA IN POWDER FORM FOR CONSTRUCTION

##### DESCRIPTION

**Hind Silica M (S)** is a dry fine particles of silica fume, in a compacted dry powder form of mineral origin. The specific surface area of **Hind Silica M (S)** is very high, as a result of which it fills up minute voids in the cement-sand matrix. It is also a supplementary cementitious binder, because it vigorously promotes secondary hydration reaction to form further C-S-H gel. The material conforms to **IS 15388 - 2003 & ASTM C - 1240**

##### USES

**Hind Silica M (S)** is used in production of high grade, high strength concrete. Its use makes concrete impervious and enhances durability. It is used for construction of basements, railway platforms, marine structures, kerbs, highway dividers, pavements, Bridges, Dams, Tunnels, Water-retaining walls, PSC girders, bridge decks and concrete structures with long spans. mass concrete work keeping the cement content less. To improve the workability and flow of concrete admixed with **Hind Silica M (S)**, a suitable superplasticiser or an air-entraining agent like '**Hind Plast Super SCA/Hind Plast AEA**' may be used in conjunction.

##### ADVANTAGES

- Improves flexural and bond strength.
- Highly enhances durability.
- Solid resistance to chemical attacks.
- Creates dense, compact impermeable concrete.
- Resists freeze/thaw effect.

##### APPLICATION

The application procedure and dosage are entirely dependent on the site requirements. The best possible dosage is possible to be ascertained on the basis of site trials. As a guideline **3% to 5%** by weight of cement is used in concrete without any cement replacement. For high grade concrete **10% to 15%** may be used as replacement of cement to enhance durability and achieve high strength. However, trials should be conducted to fix the exact dose.

##### PROPERTIES

| Aspect   |                  | Grey fine Powder |
|--|------------------|------------------|
| SiO <sub>2</sub> Content (%)                           | (IS:1727- 1967)  | > 85             |
| Moisture (%)   | (IS:15388-2003)  | < 3              |
| Loss on Ignition (LOI %)                               | (ASTM C 1240)    | <6               |
| Bulk Density (Kg/m <sup>3</sup> ) densified            |                  | > 600            |
| Alkalis as equivalent to Na <sub>2</sub> O (%)         | (IS:4032 - 1985) | <1.5             |
| Specific Surface (BET – M <sup>2</sup> /gram)          |                  | >15              |
| Fineness Retained on 45 micron sieve (%)               | ( IS:1727- 1967) | <10              |
| Variation from average retained on 45 micron sieve (%) |                  | <5               |
| Specific Gravity                                       |                  | 2.20 ± 0.05      |

##### SHELF LIFE

Best before 18 months from the date of manufacturing in unopened conditions. To be stored in a cool and dry place away from direct sunlight at temperature ranging between 2<sup>0</sup> C (Min.) and 50<sup>0</sup> C (Max.)

## PACKING

20 Kg. in HDPE Bag.

## HANDLING PRECAUTION

**Hind Silica M (S)** is non-toxic and ingestion is to be avoided. If contact with skins or eyes occurs, immediately wash with water and seek medical advice.

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### Note:

- **Hindcon Chemicals** maintains a team of technically trained professionals to provide full support to your problems in construction, and recommend the correct product to suite your specific requirements. Our authorized applicators can attend your site for application of the products.
- The content of the Technical datasheet are for general information and guideline. The result shown here are generated from our laboratory or from our site experiences.
- Quality of our products are maintained as per ISO9001:2008 recommendations and continuous researches. The behavior can change as per the prevailing conditions at the time of applications.
- Since **HINDCON CHEMICALS LIMITED** has no control over the use to which the users may put the material, it does not claim or warrant that in the user's particular circumstances, the result that the user will obtain from the product will be the same as those described in this communication or that the user will find the information or recommendations complete, accurate or useful. The client must test and ascertain the safety and fitness for the product for use.
- The right to change the properties of the products is reserved with us. The proprietary rights of third parties must be observed. All orders are accepted subject to the terms of sale and delivery. Users must always refer to the most recent issue of the latest Data Sheet for the product concerned, copies of which will be supplied on request.

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(AN ISO 9001: 2015 COMPANY)

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