



DURAMICROSILICA

Microsilica/Mineral Admixture for High Strength Durable Concrete

Description :

DURAMICROSILICA is a reactive compacted microsilica/mineral admixture for producing highly durable concrete with high strength characteristics. Chemically **DURAMICROSILICA** is a very high quality POZZOLAN which combines with Calcium Hydroxide to form Calcium Silicate hydrate. such Pozzolanic reaction leads to very high impermeability and strength of the concrete/mortar.

Standards : **DURAMICROSILICA** conforms to ASTM - C 1240-99.

Uses :

DURAMICROSILICA is used for producing impermeable and high strength concrete specially for basement structure, marine structure, spill way for dam construction, parking deck, industrial floors, shotcreting, glass fibre reinforced concrete, mortar, repair materials etc. **DURAMICROSILICA** incorporated concrete is highly durable and limits the ingress of water, chloride, sulphates and aggressive chemicals known for promoting corrosion of re-bar and distresses in concrete. The use of **DURAMICROSILICA** reduces the ASR (Alkali-Silica Reaction) of concrete. To reduce high water demand in concrete, the use of our Superplasticiser/Plasticiser like **Durasupaspred/Duraspred** is highly recommended.

Features :

- Produces very high quality concrete with improved durability.
- High compressive strength.
- Resistant to chemical attack.
- Improved flexural strength at all ages.
- Excellent protection against abrasion and erosion.
- Resistant against Freeze thaw.
- High impermeability.

Application :

As the bulk density is very low and particle is ultra fine, handling of **DURAMICROSILICA** needs some care. Normally the addition rate of **DURAMICROSILICA** is around 3 to 10% by wt. of cement but higher dosage may be required for ultra high strength concrete in conjunction with our Superplasticiser like **Durasupaspred**. The site trial is recommended for the use of **DURAMICROSILICA** in suitable designed mix.

Technical Data :

DURAMICROSILICA is a grey coloured or off white material. It meets all the performance requirements as specified in **ASTM - C 1240-99**.

Typical Test Results

SiO ₂ , % min.	: 85	87.5
Loss on Ignition, max.	: 6	0.45
Moisture, % max.	: 3	0.30
Bulk Density, kg./m ³	:	450
Accelerated Pozzolanic Activity Index (at constant flow) % min. at 7 days	: 85	95
Retained on 45 micron, % max.	: 10	3
Dosage	: 3 to 10% by wt. of cement	



Recommendation : Superplasticiser like **Durasupasred** may be used and higher dosage of **DURAMICROSILICA** alongwith **Durasupasred** may be required for ultra high strength concrete.

Rate of Hardening : It depends upon climatic condition, temperature of concrete and the use of chemical admixture in concrete. Trial mixes should be made with job materials to determine the dosage.

Shelf life & Storage : 18 month if kept unopened and stored in a dry place.

Health & safety : Very fine particles. Use face mask and eye-shield. Non flammable.

Packaging : In 25 kg. bag.

IMPORTANT: Though the product may change with some code as suffix or addendum to the principal or original name out of some minor adjustment and fine tuning in the formulation due to our continuous research and development but shall exhibit the stated properties with more improvement.

WARRANTY: Our high potency products are manufactured under stringent National/International Quality Standard specifications and guaranteed against any manufacturing defect. Suggestions and recommendations are made here based on our most practical experience and exposure over 25 years in the field and are believed to be most appropriate and correct BUT no liability can be accepted by us, as the conditions of use of such products are beyond our control.

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