

# Technical Data Sheet

## WELL MIX 400 PQC

High Performance PCE Based Admixture For Wide Range of Pavement Quality Concrete

### DESCRIPTION

WELL MIX 400 PQC is a high performance super plasticizer suitable for low & high grade concrete & intended for applications where high water reduction & long workability retentions are required. It is a unique combination of new generation super plasticizer based on polycarboxylic ether polymer with long lateral chain. Electrostatic dispersion mechanism considerably reduces the water demand in flow able concrete. It is supplied as a brown liquid, instantly dispersible in water. It disperses the cement particles effectively in the concrete mix & hence exposes a larger surface area to the hydration process. This effect is used either to increase the strength or to produce high workability concrete or reduce cement content of concrete or to retard the setting time of concrete.

### SPECIFICATION

Complies with IS 9103: 1999, ASTM C-494 / as a water reducing admixture.

### TECHNICAL DATA

Form	Dark brownish liquid.
Chemical Base	Poly- Carboxylate Ether / PCE.
Specific Gravity	1.10 ± 0.02 ( @ 27°C ± 3 )
Chloride Content	Nil To IS:456
pH Value@27°C	≥ 6
Workability Retention	Depending on manufacture recommended dosage.
Compatibility	Compatible with all types of Portland cements, sulphate resisting cements ( SRC ), micro silica & fly ash.

### USES

- \* Best Suitable for PQC Concrete.
- \* To produce strong & lifetime pavement.
- \* To produce suitable workability for concrete during placing.
- \* To produce all grades of concrete by substantial reduction in water resulting in low permeability & high flexural strength.

### ADVANTAGES

- \* Improved workability - Easier, quicker placing & compaction.
- \* Increased strength - Provides high early strength for precast concrete with the advantage of higher water reduction ability.
- \* Improved quality - Denser, close textured concrete with reduced porosity & hence more durable.
- \* Higher cohesion-Risk of segregation & bleeding minimized; thus aids pumping of concrete.
- \* Chloride free - Safe in pre stressed concrete & with sulphate resisting cements & marine aggregates

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## DOSAGE

\* The optimum dosage of WELL MIX 400 PQC to meet specific requirement should always be determined by conducting laboratory & batch trials. However the normal dosage ranges between 0.5 to 1.0 % by weight of total cement or binder content.

\* Please note that initial-final setting time, curing time & compressive strength are related to atmospheric temperature during the time of application. Low temperature will extend the above properties & vice a versa.

## DISPENSING

The measured quantity of WELL MIX 400 PQC is added along with the gauging water. In case of batching plant, the correct dosage should be used with about 18-20% of the total water in the last phase after the mix.

## DIRECTION FOR USE

Where the main requirements are to save, the cement & reducing the water content. Initial trials should be made with normal concrete mix designs. The addition of the admixture will allow the reduction of water from the mix while first maintaining workability. After initial trial, minor modification to the overall mix design may be made to optimize performance, where the main requirement is to provide high workability concrete.

## EFFECT OF OVER DOSAGE

**A severe over dosage will result in**

- \*Increase in the workability of concrete.
- \*Retardation of initial setting time.
- \*Does not affect the ultimate concrete strength.
- \*Slight increase in air entrainment.
- \*Concrete can be segregated.

## HEALTH & SAFETY PRECAUTIONS

As with all chemical products, caution should always be exercised.

Protective clothing's such as gloves and goggles should be worn.

Treat any contact to the skin or eyes by washing with fresh water immediately.

## STORAGE & SHELF LIFE

WELL MIX 400 PQC has a shelf life of one year from the date of manufacture in unopened original packing, protected from extremes of heat, cold and stored under shade.

## PACKING

WELL MIX 400 PQC is available in 1 kg, 5 kg, 20 kg, 230 kg Drum/ Barrel & Bulk Tanker Load.

## OTHER PRODUCT CATEGORIES AVAILABLE

- |                                       |                              |
|---------------------------------------|------------------------------|
| *Concrete Admixtures / Plasticizers.  | *Waterproofing & Insulation. |
| *Accelerators & Retarders.            | *Grouts & Anchors.           |
| *Foaming / Air Entraining Admixtures. | *Pump primer / Pumping Aid.  |
| *Corrosion Resistant Admixtures.      | *Curing Compounds.           |



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\*Micro Silica.  
\*Building & Joint Sealants.  
\*Industrial Floorings & Coatings.

\*Mould Releasing Agents.  
\*Repairs & Restoration.  
\*Pipeline Coatings.

## CORPORATE OFFICE

### WELL KNIT CHEMICAL

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