

## TECHNICAL DATA FOR BS-17 3P

### Water reducing Superplasticizer for high quality concrete casting

#### Description of BS-17 3P

**BS-17 3P** is a chloride free water reducing and superplasticizing admixing agent for concrete. It induces high workability to the concrete mixes, allowing large pours of high quality and also to complicated formwork casting. It is suggested to be used when high water reduction in concrete mixes is needed while maintaining normal workability.

#### Advantages of BS-17 3P

- 1) BS-17 3P increases concreting operation efficiency.
- 2) BS-17 3P helps in reducing cost by improving pumping efficiency.
- 3) Provides optimum flow and homogeneity.
- 4) It dramatically improves concrete consistency and flow ability without needing extra water.
- 5) It reduces the internal particle friction and thixotropic properties of the mix to a minimum without creating any risk of segregation, thus improving the pumping and pouring operations more efficient.
- 6) It controls bleed in the mix.

#### Uses of BS-17 3P

- 1) Commercial & Residential Construction
- 2) RMC production units
- 3) Concrete batching plants at sites
- 4) Inducing self-compaction properties specially when high reinforcements are present

#### Benefits of BS-17 3P

- 1) Use of BS-17 3P ensures better quality of concrete casting as it makes the concrete more water tight and helps in waterproofing.
- 2) Production of denser concrete casting.
- 3) Reduces pin-holes and honey combing in concrete mass that is generally there in normal concrete.

- 4) Makes the vibration process more effective.
- 5) It allows better mix of ready-mix concrete.

#### Physical Properties of BS-17 3P

| Appearance                    | Dark Brown | Liquid    |
|-------------------------------|------------|-----------|
| Density                       | 1.12       | (+/- .02) |
| pH Value                      | 7 to 8     |           |
| Solids by weight              | 44%        | (+/- 2)   |
| Viscosity B4 Cup @ 30 Celsius | 18         | (+/- 2)   |

\*Above results are for a typical sample. We strongly advise to carry out site trials before application.

#### Conforming Standards

BS-17 3P conforms to specification and guidelines provided in IS: 9103:1999 and BS:5075 Part 3

#### Guidelines for use BS-17 3P

- 1) When using BS-17 3P, at the job site add it to the concrete mix just before the placement of concrete is being done.
- 2) For ready mix plants it may be dosed in the water to be added in the mix for ready-mix concrete. To ensure proper performance of the system, make sure that the mixing is done for at least 5 minutes.
- 3) When admixing in ready-mix churn at full speed for 5 minutes for thorough dispersion.
- 4) The effect the BS-17 3P shall last 50 to 65 minutes after the concrete has been admixed. The concrete should therefore be placed without any delay.

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- 5) If more workability time is required, additionally concrete retarders may be used to allow for longer periods of placement without any loss of slump.

\*You may contact us for guidance on using retarding admixtures.

#### Over dose issues

BS-17 3P overdosing will result in very high workability and some retardation of setting time will occur. However, the ultimate compressive strength will not be impaired. Segregation may happen which has to be dealt with by suitable changes in mix.

#### Technology in BS-17 3P

BS-17 3P is a second generation Superplasticizer developed on proprietary formulation with technology based on Sodium Naphthalene Formaldehyde & Lignosulphate.

This technology of BS-17 3P works on a mechanism that improves the cement molecule dispersion in the concrete mix matrix that allows for reduction in water molecules, while plasticizing the mix to maintain slump improvement.

#### Performance of BS-17 3P in concrete mix

| S.No | Mix Type | Dosage | Cement in Kg/M3 | W/C Ratio | Slump in cms |
|------|----------|--------|-----------------|-----------|--------------|
| 01   | Normal   | -      | 300             | .55       | 5            |
| 02   | Admixed  | 0.8%   | 300             | .55       | 16           |
| 03   | Admixed  | 1.0%   | 300             | .55       | 20           |

**Note: The figures given here are to be considered as a general guideline, as the actual results derived will depend on type of cement blend, aggregates, temperature and other local factors.**

**Always conduct trial at the jobsite for site specific accuracy of performance results.**

#### Disclaimer Note

- 1) The information and details provided here are true and accurate to the best of our knowledge and experience, however no warranty is provided or implied with any suggestions or guidelines made by us or our representatives because of the working conditions of the sites, type of substrates, quality of other mixing elements and the skills of the applicators involved in application of the materials are beyond our control or influence.
- 2) Your purchase and use of the material implies you have understood the above information and follow it accordingly.

#### Packaging Standards

- 1) Available in 5Kg, 20Kg & 200 Kg packaging
- 2) Caps should be preserved for drum reuse
- 3) Do not use drums to store consumable
- 4) To be stored in shade
- 5) Follow local guidelines for disposal

