

# FARCO PLAST M20

## High Range Water Reducing Admixture

### Product Description

FARCOPLAST M20 is a high range water reducing admixture formulated to produce flowable concrete with extra workability at minimum water-cementitious materials ratio (W/CM).

FARCOPLAST M20 increases early and ultimate strengths and durability by decreasing W/CM up to 30%.

FARCOPLAST M20 is a highly efficient dispersing agent which reduces the tendency for cement, fly ash or slag particles to clump together therefore the cementitious paste disperse throughout the concrete mixture, trapped water is released and a greater surface area of cementitious particles becomes available for hydration.

### ● Application

FARCOPLAST M20 can be used to reduce water-cementitious ratio to achieve higher strength required for:

- High rise commercial buildings.
- Pre-stressed beams and slabs.
- Precast elements.

FARCOPLAST M20 can be used to achieve flowing concrete without increasing the amount of water added to the mix; flowing concrete is suitable on projects:

- With tight spacing between steel reinforcement and pre-stressing tendons.
- Areas of congested reinforcing steel.

- Architectural concrete.
- Flat work and foundations where it can improve the rate of placement.

FARCOPLAST M20 can be used to achieve high slump concrete with lower W/CM ratio than normal concrete like:

- Structural elements that are either thin or congested with steel.
- Precast concretes which have architectural details and concrete must also gain strength at early ages.

### ● Advantages

- FARCOPLAST M20 improves the rheological and mechanical properties of concrete; i.e. workability, compressive and flexural strength and modulus of elasticity.
- Can produce lower product costs with the superplasticizer to job site condition including faster and easier placement, enhanced finish ability and reduced curing costs.
- Reduced discharge and turnaround time for trucks
- Faster reuse of forms
- Improves impermeability to reduce sulfate attack
- Increase strength at all ages

### ● Standard Compliance

FARCOPLAST M20 complies with:

- ASTM C 494 as Type F
- ISIRI 2930
- EN 934-2

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## ● Dosage

FARCOPLAST M20 is normally dosed at a rate of 500-2500 g per 100 kg of cementitious materials (0.5%-2.5% by weight of CM). Field testing is recommended to determine the optimum dosage and effect on both plastic and hardened concrete properties such as: workability and workability retention, setting time, early and ultimate strength.

## ● Method of Use

- FARCOPLAST M20 is supplied ready for use and is completely miscible in water.
- It can be added in to the mixer at the same time as the mixing water.
- It should not be added directly to the cement or dry materials.
- FARCOPLAST M20 may be added at the end of mixing process by dispensing equipment or it may also be added to the concrete in a drum of ready mix truck, it should be mixed at least 1 minute per m<sup>3</sup> of concrete at high speed.

## ● Compatibility

### With cements

FARCOPLAST M20 is suitable for use with cement replacement materials e.g. fly ash, silica fume, blast furnace slag cement concrete

### With other Admixtures

FARCOPLAST M20 should not be premixed or used with other admixtures unless receive the approval from manufacturer. We

would recommend that the SHIMI-SAKHTEMAN be consulted in such circumstances.

## ● Packaging

FARCOPLAST M20 is supplied in 20kg gallons and 250kg drums.

## ● Storage

FARCOPLAST M20 should be kept from freezing.

- If accidentally frozen, its properties can be restored by thawing and thorough mixing by mild agitation.
- Protect from extremes of temperature
- It is best stored at temperatures between 5°C and 40°C.

## ● Shelf life

12 month when M20 is kept under the recommended conditions and stored in unopened and undamaged original sealed containers.

## ● Safety and Handling Precautions

FARCOPLAST M20 is a mildly alkaline material direct contact may cause irritation of eyes. Prolonged contact may cause skin irritation. May be harmful if swallowed do not get in eyes; avoid prolonged skin contact. Wash thoroughly after handling.

## ● Technical Service

The SHIMISAKHTEMAN Technical Service Department is available to assist you in the concrete problems in the field and correct use of our products.



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