

Product Description

FARCOMENT M50 is a water reducing admixture with retarding properties, based upon a combination of lignosulphonates and selected retarders. FARCOMENT M50 is formulated for concreting in hot climate with extended slump retention properties. FARCOMENT M50 reduces the water required for the same slump concrete by at least 5 percent therefore great impermeability, reduced shrinkage and higher compressive strength concrete is achieved. It also can be used to significantly increase slump without increasing water content to produce more plastic and flowable concrete. It also may be employed to achieve a combination of these two objectives –slump increase with water reduction content.

Mechanism of Action

FARCOMENT M50 is adsorbed on to the cement particles and lowers the interparticle attraction so that flocs of cement break-up. This produces a more uniform dispersion of cement grains reducing the amount of water needed to achieve a given paste viscosity. FARCOMENT M50 increases the gel content of the concrete, the increased gel content adds to the water retention and internal cohesiveness of the mix, reducing bleeding and segregation as it increases workability and place ability.

Application

FARCOMENT M50 is recommended for use in all types of concrete including:

- Architectural concrete
- General purpose ready mixed concrete
- Mass concrete
- Hot weather concreting
- Concrete containing such pozzolanic materials as fly ash, silica fume and slag

Advantages

Plastic Concrete

- Reduced water requirement
- Reduced segregation at a given slump
- Extended setting time
- Improved workability and workability retention.
- Easier and faster pumping of concrete
- Improved finish ability

Hardened Concrete

- Reduced shrinkage
- Increased ultimate compressive strength
- Reduced permeability
- Increased concrete durability and uniformity

Standard Compliance

FARCOMENT M50 complies with:

- ASTM C 494 – Type D
- EN 934 -2 -Table 10
- ISIRI 2930 -Table 11

General Properties

Chemical Composition	Modified lignosulphonate
Ionic nature	anionic

FARCOMENT M50

Appearance	Brown liquid
Specific Gravity(kg/l)	1.18 ± 0.02
Chlorides (PPM)	500 max

● Dosage

The recommended dosage range for FARCOMENT M50 is 200-800gr per 100kg of cementitious materials (0.2-0.8% of CM).

- Dosage recommendations depend on characteristics of the materials being used in the mix design.

Field testing is recommended to determine optimum dosage and effects on both plastic and hardened concrete properties, such as: workability and workability retention, setting time, early and ultimate strength.

Effects of over dosing

The amount of water reduction or gain in workability will increase with increasing dose, any over dosing which is significantly in excess of that intended can in certain circumstances result in significant retardation and or a degree of air entrainment.

Extra curing is essential to prevent the surface drying out before setting.

Where there is air entrainment the gain in strength and the other properties will develop normally after the initial retardation period.

● Method of Use

- FARCOMENT M50 is supplied ready for use and is completely miscible in water.

- It can be added into the mixer at the same time as the mixing water.

- It should not be added directly to the cement or dry materials.

- FARCOMENT M50 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 m³ of concrete at high speed.

● Compatibility

With cements

FARCOMENT M50 is suitable for use with cement replacement materials e.g. Fly ash, silica fume, blast furnace slag cement concrete.

With other Admixtures

FARCOMENT M50 should not be premixed or used with other admixtures unless receive the approval from manufacturer. We would recommend that SHIMISAKHTEMAN be consulted in such circumstances.

● Packaging

FARCOMENT M50 is supplied in 20kg gallons and 250kg drums

● Storage

Storage recommended to keep within the range of 5°C to 40°C, if product has frozen, thaw and agitate until completely reconstituted.

Keep out of direct sunlight.



● Shelf life

12 month when M50 is kept under the recommended conditions and stored in unopened and undamaged original sealed containers.

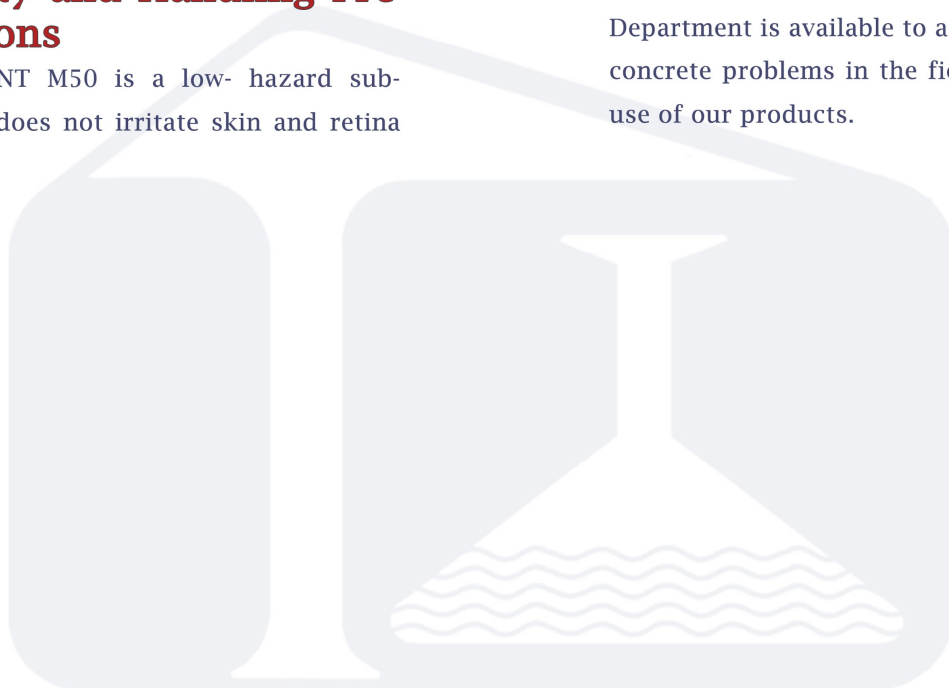
● Safety and Handling Precautions

FARCOMENT M50 is a low-hazard substance; it does not irritate skin and retina

under normal conditions. But in the line with general handling precautions to avoid contact with skin or eyes, protective gloves and goggles should be worn.

● 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.



242 Bldg., Mirdamad Blvd., After Naft St., Tehran. Iran

Tel: +98 21 (22263100 , 22263099 , 22259736) Fax: +98 21 22260586

Shimi Sakhteman



+98 21 27427