

## MERQUA HIGH RANGE WATER REDUCER / SUPER PLASTICIZER ADMIXTURE

MERQUA is a high range water reducer and super plasticizing admixture. It meets the requirements of the following standards: ASTM C494/C494 M TYPE F, EN 934 and ISIRI 2930

### APPLICATION

- Enables production and transportation of concrete
- Ready mix concrete
- Slabs, foundations, columns, shear and retaining walls, deck bridges, etc.
- Industrial heavy floors
- Design of concrete mixes with crushed aggregates

### ADVANTAGES

- Reduces water-cement ratio up to 20%
- Increases workability and workability retention of concrete
- Improves pumpability of concrete
- It can be used with all types of Portland cement
- Improves concrete consistency
- Prevents creep and shrinkage of concrete
- Considerably reduces permeability
- Increases the compressive strength of concrete
- Use simultaneously with silica fume, fly ash and other pozzolanic materials

### DOSAGE

The optimum dosage of MERQUA can be determined by trials in the site. Depending on concrete mix design (sizes and types of aggregates, cement content, water/cement ratio, ambient temperature and concreting conditions), a dosage of between 0.45 and 1.2 percent by weight of cement or cementitious material is recommended.

For use with other range of dosage, contact ABADGARAN GROUP Technical Services Department.

### DIRECTION OF USE

- 1-MERQUA could be added to a part of concrete mixing water then added to the concrete mix.
- 2- MERQUA could be added to the concrete mix during the mixing cycle at the same time as the water or the aggregate or it could be added to ready-mix concrete before placing concrete.
- 3- Admixtures must be weighed carefully.

### PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:  $1.18 \pm 0.05 \text{ g/cm}^3$

Physical state: Liquid

Color: Dark brown

pH:  $7.0 \pm 0.5$

Chloride Content: Nil to EN 934



Construction  
Chemicals Producers  
Membership



Iranian  
Tunneling  
Association  
Membership



Iran Standard's Mark  
Holders Association  
Membership



ISO 9001:2008  
TUV NORD Iran PJS



National Accreditation  
Center of Iran  
ISO / IEC 17025



Iranian Concrete  
Institute  
Membership



Ministry of Industry,  
Mine and Trade  
R & D Certificate

### STORAGE

Shelf life: 3 months in the original package

Storage condition: Should be protected from direct sunlight and frost. Keep container in the temperature range between +10°C and +30°C.

Packing: 24 kg container or 1000 kg tank

### HEALTH AND SAFETY

This product does not contain any substances hazardous to human health and the environment. However, it should not be swallowed and contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water. MERQUA is not flammable. For further information refer to the material safety data sheet. MSDS is available at ABADGARAN GROUP website.

### TECHNICAL SERVICE

The ABADGARAN GROUP Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

