

## **S.P.A.PLAST-M4** **HIGH RANGE WATER REDUCER / SUPER PLASTICIZER ADMIXTURE**

### **DESCRIPTION**

S.P.A.PLAST-M4 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, ISIRI 2930

### **APPLICATION**

- Enables production and transportation of concrete in normal weather conditions
- Slabs, foundations, columns, shear and retaining walls, deck bridges, etc.
- Suitable for producing pumpable concrete with workability retention

### **ADVANTAGES**

- Reduces water-cement ratio in the range of 12% to 20%
- Increases workability and workability retention of concrete
- Improves pumpability of concrete
- It can be used with all types of Portland cement
- Prevents creep and shrinkage of concrete
- Increases the compressive strength of concrete
- Reduces permeability

### **DOSAGE**

The optimum dosage of S.P.A.PLAST-M4 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 1.3 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-S.P.A.PLAST-M4 could be added to a part of concrete mixing water then added to the concrete mix.

2- S.P.A.PLAST-M4 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:  $1.04 \pm 0.05 \text{ g/cm}^3$

Physical state: Liquid

Color: Dark brown

Chloride content: Nil to EN 934



## STORAGE

Shelf life: 1 year 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: 21 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. S.P.A.PLAST-M4 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.

