

## **Techno Mix SP 738**

# Workability retention, high range water reducer and super plasticizer

#### Uses

Gives increased working life to fresh concrete. Increases workability without extra water, reducing placing time and costs. Improves cohesion, minimizing segregation and improving surface finish. Aids pumping by improving cohesion and reducing workability loss. Allows a reduction in water/cement ratio, enhancing durability by producing low permeability concrete with reduced shrinkage cracking potential. Chloride free, safe for use in prestressed and reinforced concrete. Can be used with concrete containing micro silica and other cement replacements

#### **Standards compliance**

Techno mix SP 738 complies with BS 5075 part 3 and ASTM C494 as Type G.

### **Description**

Techno mix SP 738 is a chloride free workability retention admixture based on selected organic polymers. It is supplied as a brown solution, which instantly disperses in water. Techno mix SP 738 disperses the fine particles in the concrete mix enabling the water content of the concrete to perform more effectively. The increased workability, cohesion and retardation minimizes loss of workability.

#### **Dosage**

The optimum dosage of Techno mix SP 738 to meet specific requirement should always be determined by trials using the normal dosage range is 0.6 to 1.5 liters /100 kg of cementitious material, including PFA, GGBFS and micro silica.

Use at other dosages

Dosages outside the typical range quoted above may be used if necessary and suitable to meet particular mix requirements. Contact M. T. C. for advice in these cases.

#### **Properties**

**Appearance** Brown liquid

**Specific gravity** 1.17 to 1.19 at 20°C

**Chloride content** Nil to BS 5075

#### Instructions for use

Mix design for workability retention the mix design should be one suitable for use as a pump mix. To obtain the best results for workability retention, the initial workability Should be above 150 mm slump.

The retardation and improved cohesion provided by Techno mix SP 738 then act to enhance the workability retention characteristics. In correctly designed flowing, the improved dispersion of the cement particles and the more efficient use of mixing water will improve mix cohesion. The improved cohesion obtained with Techno mix SP 738 will also help to minimize bleed and segregation. After initial trials, minor modifications to the mix design may be made to optimize performance.

# **Compatibility**

#### **Modern Technologies for Construction Chemicals**

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Techno mix SP 738 is compatible with other M. T. C admixtures used in the same concrete mix. All admixtures should be added to the concrete separately and must not be mixed together prior to addition.

The resultant properties of concrete containing more than one admixture should be assessed by the trial mixes. Techno mix SP 738 is suitable for use with all types of ordinary Portland cements and cement replacement materials such as PFA, GGBFS and micro silica.

### Dispensing

The correct quantity of Techno mix SP 738 should be measured by means of a recommended dispenser. Normally, the admixture should be added to the concrete with the mixing water to obtain the best Results.

### **Effects of overdosing**

An overdose of double the amount of Techno mix SP 738 will result in a significant increase in retardation as compared to that normally obtained. Provided that adequate curing is maintained, the ultimate strength of the concrete will not be impaired by increased retardation and will generally be increased.

The effects of overdosing will be further increased if sulphate resisting cement or cement replacement materials are used. Over dosage is also likely to cause increased air entrainment, which will tend to reduce strength. The degree of this effect will depend on the particular mix design and overdose level.

## **Packaging**

Techno mix SP 738 is available in drum and bulk Supply.

#### Storage

Techno mix SP 738 has a minimum shelf of 12 months provided the temperature is kept within the range of 2°C to 50°C.

#### **Precautions**

#### **Health and safety**

Techno mix SP 738 does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn.

Splashes on the skin should be removed with water. In case of contact with eyes, rise immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

#### Fire

Techno mix SP 738 is water based and non-flammable.

## Cleaning and disposal

Spillages of Techno mix SP 738 should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water.

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