

Techno Mix SP 731

High Range Water Reducing & Super plasticizer Concrete Admixture

Uses

To produce high workability concrete requiring little or no vibration during placing. Can provide up to 25% reduction in free water without loss of workability, resulting in high quality concrete of reduced permeability with increased early strength gain. Suitable for precast concrete pipes.

Advantages

- Increased workability reduces placing time, equipment and labour element. Needs little or no compaction during placing.
- When used as a water reducer without cement reduction, early strength is increased by up to 70% at 24 hours. Ultimate strength is also increased.
- Increases density and reduces porosity resulting in improved water penetration resistance.
- Increases cohesion, minimizes bleeding and segregation and gives improved surface finish.
- Chloride free, so safe in prestressed concrete.
- Compatible with sulphate resistant cement or marine aggregates.

Description

Techno mix SP 731 is a synthetic plasticizer derived from sulphonated naphthalene. It is supplied as a transparent liquid.

Standards

Techno mix SP 731 complies with BS5075 Part 3 ASTM C494 Type F. High range water reducing admixture.

Properties

Specific gravity	1.18 to 1.21 at 20°C.
Calcium chloride content	Nil to BS 5075.
Air entrainment	Less than 1 % additional air is entrained.
Setting time	Less than 1 hour retardation at normal dosage.

Compatibility

Can be used with all types of Portland cements, Type V cement and cement replacements. Techno mix SP 731 is generally compatible with all other M. T. C. admixtures when added separately to the mix.

Durability

When Techno mix SP 731 is used for water reduction the increase in density and reduction of permeability improves durability and reduces porosity.

Compressive strength/density

Substantial reduction in water/cement ratio will result in a large increase in 24 hour compressive strength without the loss of workability.

Modern Technologies for Construction Chemicals

Factory: Wadi Elnatroun - First Industrial Area.
Head Office: New Maadi - 3\288 St. from Aljazaer St.
Fax. & Tel.: 02-25200833 Mob. : 010 209 65554
www.mtcchem.com

Cohesion / segregation

Improved dispersion of the cement particles will increase cohesion at both the flowing and plastic consistency. The occurrence of bleeding and sand runs is substantially reduced, thus improving the surface finish achieved.

Instructions for use

Dosage

The optimum dosage for Techno mix SP 731 should be determined by site trials with the particular concrete mix under prevailing ambient conditions. Site trials should always be compared with and without Techno mix SP 731 to quantify the true value of increase in strength gain. As a guide, the dosage will fall into:

0.60 to 1.0 litres/100 Kg cement, for flowing concrete.

1.40 to 2.5 litres/100 Kg cement, for high strength concrete.

Overdosing

An overdose of double the recommended amount of Techno mix SP 731 will result in very high workability and some retardation will occur. The ultimate compressive strength of the concrete will not be impaired.

Dispensing

The correct quantity of Techno mix SP 731 should be measured by means of a recommended dispenser.

Mix Design

When flowing concrete is to be used the design should be based on high cohesion pump mix technology. Where maximum economy is required via cement saving and free water content reduction the fines Content should always be as "low" as possible to allow the remaining free water to act more efficiently.

Curing

As with all structural concrete, normal curing methods apply. Water spray, wet Hessian or one of the Techno cure spray applied surface contact curing membranes should be used in all cases.

Cleaning

Spillages of Techno mix SP 731 can be removed with water.

Precautions

Health and safety

Techno mix SP 731 is non-toxic. Any splashes to the skin should be washed immediately with water. Splashes to the eyes should be washed immediately with water and medical advice should be sought.

Fire

Techno mix SP 731 is non-flammable.

Storage

Techno mix SP 731 has a minimum shelf life of 12 months provided the temperature is kept within the range 2°C to 50°C. If this temperature is exceeded in any respect advice should be sought from the supplier.

Packaging

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Techno mix SP 731 is supplied in 20 and 210 liter drums and also in tanker loads.

Supply

Contact your M. T. C. office or representative.

Technical service

The company provides a technical advisory service for on site assistance and guidance on evaluation trials and dispensing equipment.

Additional information

Technical data can be provided on a wide range of admixtures, and concreting aids including accelerators, retarders, water proofers, mould release agents, surface retarders and repair materials.

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