



KEM SUPLAST 101 S

Sulphonated naphthalene formaldehyde based super plasticizer strength accelerator.

Ref. CA/SP-V1-0112

Description

KEM SUPLAST 101 S is a synthetic super plasticizer based on sulphonated naphthalene. It is a brown liquid instantly dispersible in water.

KEM SUPLAST 101 S will give flowing concrete or high strength concrete with high early strength development and impermeability depending on Dosage and water reduction percentage.

Use

KEM SUPLAST 101 S can provide up to 25% reduction in Water, thereby reducing permeability and increasing strength.

Advantages

- **Increased Workability** : Reduces placing time, labour and equipment.
- **High Strength Concrete** : Water reduction gives higher strengths without cement increase or workability loss.
- **High Early Strength** : Water reduction can double the early age strength development.
- **Reduced Permeability** : Reduction of Water reduces porosity giving improved water impermeability
- **Surface Finish** : Better dispersion of cement particles and increased cohesion minimizes segregation and bleeding and gives improved surface finish.
- **Improved Pumpability** : Line friction is reduced by increasing workability and cohesion.
- **Chloride Free** : Safe in reinforced concrete.

Typical Properties

Calcium chloride content : Nil.

Specific Gravity : 1.20 ± 0.02 C.

Air Entrainment : Less than 1% additional air is entrained.

Setting Time : Less than 1 hour retardation at normal dosage.

Cement Compatibility : Compatible with sulphate resisting and other Portland cements and high alumina cements.

Durability : Water reduction gives increase in density and water impermeability which improves durability.

Compressive Strength : Reduction in water/cement ratio will result in up to 75% increase in early age compressive strength. See table 2 for typical trial mix results.

Standards

KEM SUPLAST 101 S complies with BS 5075 -1982 and ASTM C-494 Type F.

Direction for use

0.30 - 0.50 litres/50 kg cement for flowing concrete and 0.70 - 1.00 litre/50 kg cement for high strength Concrete.

Dosage

The optimum dosage KEM SUPLAST 101 S should be determined by site trials with the particular concrete mix under prevailing ambient condition. Dosage can be from 0.15 litres/50 kg up to 1.5 litres/50 kg, depending on the requirements of the concrete involved.

Effects of over dosage

An over dose of up to 2 litres/50 kg cement of KEM SUPLAST 101 S will result in very high workability, some retardation and possible segregation. However, the ultimate compressive strength of the concrete will not be impaired if cured properly.

Packaging

KEM SUPLAST 101 S is supplied in 20 and 210 litres drums.

Storage and Shelf life

KEM SUPLAST 101 S should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use.

KEM SUPLAST 101 S has a minimum shelf life of 12 months from manufacturing date, for original sealed packaging provided temperature is kept with in the range 5° C to 30° C.



Technical Service

"CHEMBOND" provides technical support service on mix design, admixture selection, evaluation of trials, dispensing equipment etc. Please contact the Technical department in these cases.

Curing : As with all structural concrete, normal Curing methods apply. Use KEM CURE type curing Membrane where it is specified to use a curing Membrane.

Cleaning : Spillages of KEM SUPLAST 101 S can be removed with water.

Safety precautions

HEALTH AND SAFETY

KEM SUPLAST 101 S 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 : KEM SUPLAST 101 S is non-flammable.

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