AKARSH SPECIALITIES
HIGH PERFORMANCE CONSTRUCTION CHEMICALS
Proven UK Technology

ISO 9001: 2008 Reg. No.: 661319

VARAPLAST SP 651

HIGH PERFORMANCE SUPERPLASTICIZING, HIGH RANGE WATER REDUCING & WORKABILITY RETAINING ADMIXTURE

DESCRIPTION

VARAPLAST SP 651 is a chloride free, Superplasticising admixture based on selected synthetic polymers. It is supplied as a brown solution which is instantly dispersible in water.

VARAPLAST SP 651can provides very high level of water reduction and excellent workability retention in highly reactive cement.

USES

- **VARAPLAST SP 651** can provides self-leveling concrete practically eliminating the need for vibration during placing.
- **VARAPLAST SP651** provides excellent workability even at low water/cement ratio.

ADVANTAGES

- **Increased Workability**: Reduces placing time, labour and equipment.
- **High Strength Concrete**: Water reduction gives higher strengths without cement increase or workability loss.
- **Workability Retention** : Good workability retention without set retardations
- **Reduced Permeability**: Reduction of water reduces porosity giving improved water impermeability.
- **Surface Finish**: Better dispersion of cement particles and increased cohesion minimises 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.

STANDARDS

VARAPLAST SP 651 complies with **BS 5075 – 1982** and **ASTM C494 Type G.**

TYPICAL PROPERTIES

- **Calcium Chloride Content** : Nil
- **Specific Gravity:** 1.24 at 25° C.
- **Air Entrainment:** Less than 1% additional air is entrained.
- **Setting Time** : 1 to 2 hours retardation at normal dosage depending on mix design
- **Chloride Content:** Nil to **BS 5075.**
- **Cement Compatibility:** Compatible with GGBS slag cement, Fly Ash, Sulphate resisting cement and other Portland cements, high alumina cements.
- **Durability:** Water reduction gives increase in density and water impermeability which improves durability.

INSTRUCTIONS FOR USE

Dosage: The optimum dosage for **VARAPLAST SP 651** should be determined by site trials with actual site conditions.

As a guide the dosage is normally:

0.60 - 1.20 litres/100 kg cementitious material, for flowing concrete.

0.80 - 2.90 litres/100 kg cementitious material, for high strength concrete.

Dosage can be from 0.6 litres to 3 litres/100 kg, cementitious material, depending on the requirements of the concrete involved

Overdosing: An overdose of double the intended amount of **VARAPLAST SP 651** will result in very high workability as compared to that normally obtained. Provided that adequate curing is maintained, the ultimate compressive strength will not be impaired.

TECHNICAL SUPPORT

'**AKARSH**' 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.

PACKAGING

VARAPLAST SP 651 is supplied in 250 Kg barrels.

Cleaning: Spillages of **VARAPLAST SP 651**can be removed with water.

Storage: VARAPLAST SP 651 should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use. **VARAPLAST SP 651** has a minimum shelf life of 12 months provided temperature is kept within the range 5° C to 30° C.

PRECAUTIONS

HEALTH & SAFETY

VARAPLAST SP 651 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: VARAPLAST SP 651 is non flammable.