



VARAPLAST SP 123

HIGH PERFORMANCE, SUPERPLASTICISING, HIGH RANGE WATER REDUCING AND WORKABILITY RETAINING ADMIXTURE

DESCRIPTION

VARAPLAST SP 123 is a chloride free, Superplasticising admixture based on selected high grade SNF synthetic polymers. It is supplied as a brown solution which is instantly dispersible in water.

VARAPLAST SP 123 can provide very high level of water reduction and hence major increase in strength can be obtained coupled with good retention of workability to aid placement.

USES

- ◆ **VARAPLAST SP 123** can provide self-leveling concrete practically eliminating the need for vibration during placing.
- ◆ **VARAPLAST SP 123** provides excellent workability even at low water/cement ratio.
- ◆ **VARAPLAST SP 123** is also recommended for use in PPC concrete and high workability concrete and where fast shutter removal is required.

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 Risk of Retardation :** Normal set without retardation even if accidentally overdosed.

- ◆ **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 123 complies with **BS 5075 – 1982** and **ASTM C494 Type G. IS 9103 -1999**

TYPICAL PROPERTIES

- ◆ **Calcium Chloride Content :** Nil
- ◆ **Specific Gravity :** 1.22 at 25° C.
- ◆ **Air Entrainment :** Less than 1% additional air is entrained.
- ◆ **Setting Time :** No retardation at normal dosage.
- ◆ **Chloride Content :** Nil to **BS 5075**.
- ◆ **Cement Compatibility :** Compatible with sulphate resisting and other Portland cements, high alumina cements and cement replacement materials such as **PFA, GGBFS** and **Microsilica**.

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

INSTRUCTIONS FOR USE

Dosage : The optimum dosage for **VARAPLAST SP 123** should be determined by site trials with actual site conditions.

As a guide the dosage is normally:

0.50 - 1.0 litres/100 kg cementitious material, for flowing concrete.

0.80 - 1.50 litres/100 kg cementitious material, for high strength concrete.

Overdosing : An overdose of double the intended amount of **VARAPLAST SP 123** 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 123 is supplied in 250 kgs drums.

Cleaning : Spillages of **VARAPLAST SP 123** can be removed with water.

Storage : **VARAPLAST SP 123** should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use. **VARAPLAST SP 123** has a minimum shelf life of 12 months provided temperature is kept within the range 5° C to 30° C.

HEALTH & SAFETY

VARAPLAST SP 123 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 123** is non flammable.