

BUILDPLAST SUPER (HR)

High range water reducer/Superplasticiser

DESCRIPTION : **BUILDPLAST SUPER (HR)** is a high range water reducing admixture & superplasticiser for producing high strength and free flowing concrete. It is a dark brown liquid based on specially selected organic polymers. It allows large reduction in water content whilst maintaining similar workability. Water reduction more than 20% is possible with **BUILDPLAST SUPER (HR)** depending upon the dosage.

STANDARD : Conforms to IS: 9103 and ASTM C494 Type F.

USES : **BUILDPLAST SUPER (HR)** is used in flowing concrete, pumped concrete, prestressed concrete as well as in industrial/commercial flooring and floor toppings.

FEATURES

- ❖ Extremely high workability, speeds construction.
- ❖ Little vibration required, self-compacting.
- ❖ Reduced permeability due to lower w/c ratio
- ❖ Higher strength
- ❖ Very high strength through large water reduction
- ❖ Reduced segregation with increased cohesion.
- ❖ Chloride free, safe in prestressed and reinforced concrete.
- ❖ Reasonable working life at elevated temperature.
- ❖ Economical, substantial cement saving is possible without strength or workability Loss.

APPLICATION

Suitable mix design as normally required for superplasticiser should be followed with **BUILDPLAST SUPER (HR)** for the particular requirement of strength, cost saving or flowing concrete of high slump concrete. A measured quantity of **BUILDPLAST SUPER (HR)** is added into the mixer. To achieve the best results, the mixer along with material should be rotated for atleast 2-3 minutes.

DOSAGE

- | | | |
|---|---|--------------------------------|
| For flowing concrete | : | 0.5 – 1 % by weight of cement. |
| For high strength through water reduction | : | 1 – 1.5 % by weight of cement. |

Consumption of **BUILDPLAST SUPER (HR)** will increase in case of low w/c ratio. Typically to achieve 20% or more water reduction, 1.5 kg. of **BUILDPLAST SUPER (HR)** per 50 kg. cement may be required. However, optimum dosage is determined at site after conducting trials. Overdosing will increase workability but may cause retardation.

Typical trial

Grade : M 25

Sand : Zone II & coarse aggregate

Cement : 43 grade

| Test | Cement Content | Dosage of Buildplast Super HR | W/c | Slump | | Comp. Strength (N/mm ²) | |
|-------------------------|----------------|-------------------------------|------|---------|--------------|-------------------------------------|---------------|
| | | | | Initial | After 1 Hour | After 7 Days | After 24 Days |
| Control | 450 Kg. | Nil | 0.36 | Nil | Nil | 24 | 28 |
| Increase in Workability | 450 Kg | 0.8% by weight of cement | 0.36 | 130 | 90 | 38.50 | 48 |

TECHNICAL DATA

| | | |
|-------------------|---|--|
| Colour | : | Dark brown |
| PH | : | 7 - 8 |
| Specific gravity | : | 1.20 ± 0.02 |
| Chloride | : | Nil as per BIS 9103 & BS 5075 |
| Compatibility | : | With all portland & blended cements |
| Setting time | : | Less than one-hour retardation at normal dosage |
| Chemical basis | : | Sulphonated Naphthalene-formaldehyde condensate Polymer |
| Air entrainment | : | Less than 1% |
| Shelf life | : | 12 months if kept unopened containers at normal ambient temprature |
| Storage condition | : | Store it under a shade |
| Packing | : | 25 kgs. 250 kgs |
| Health & safety | : | Non-toxic, non-inflammable and eco-friendly. |