

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 : 1 – 1.5 % by weight of cement.
water reduction

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 : 1.18 ± 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 temperature
 Storage condition : Store it under a shade
 Packing : 25 kgs. 250 kgs
 Health & safety : Non-toxic, non-inflammable and eco-friendly.