



SUPAPLAST-MF

Superplasticiser/High Range Water Reducing Admixture

DESCRIPTION

“SUPAPLAST-MF” is a high range water reducing admixture based on sulfonated melamine formaldehyde resin. It is a clear liquid and gets dispersed immediately in concrete mix together with water. It conforms to IS: 9103-1999 and ASTM C-494 type F & G.

USES

“SUPAPLAST-MF” can be used to either produce an extremely workable “**FLOWING CONCRETE**” without loss of strength or to enable large water reduction to be made for the same workability resulting in dense concrete with higher early and ultimate strength. The advantage of producing very high early strength, make “SUPAPLAST-MF” suitable for use in precast concrete application and in areas where early shutter stripping is required.

TABLE-1 Test Results for Early Shutter Stripping Using “SUPAPLAST-MF”

SL. No.	Test	Dosage in Lt./50 kg of cement	W/C	Cement content in kg/m ³	Slump in mm	Compressive Strength in kg/cm ²			
						1 day	3 days	7 days	28 days
1	Control Mix	-	0.55	400	105	82	140	243	342
2	With SUPAPLAST-MF	0.3	0.48	400	115	113	260	353	423

Laboratory Temp. 28°C and RH - 70 ± 5%

NOTE : The above results are intended only as a guide and as such is suggested in good faith. It is based on our laboratory experience using cement, aggregates available locally. Type of cement aggregates from other sources can produce different results. Therefore it is recommended that site trials are essential to determine optimum suitability for proposed application.

ADVANTAGES

- Substantial improvements in workability and flow properties without increased water produces self leveling concrete which can be poured into place around congested reinforcement and requires little (or no) vibration to achieve optimum compaction. The bond strength of concrete to reinforcement steel is considerably increased.
- The internal friction and thixotropy of the mix is reduced to a minimum without the risk of segregation, thus making concrete pumping more efficient.
- Very significant water reduction minimises shrinkage cracking thereby producing close textured impervious concrete with improved durability and surface finish. Suitable for use in most types of concrete above and below ground subjected to water pressure and aggressive atmospheric conditions.
Reduction in concrete permeability, protects against water migration and corrosion of embedded steel.
- For a given concrete mix, keeping the cement consumption and workability constant by large reduction in the amount of mixing water, substantial increase in strength can be achieved. Alternatively, for the same concrete mix, by keeping the workability and strength constant, a definite cement economy ranging from 15 to 25% can be obtained. Obvious advantages for precast concrete production are achieved.

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PROPERTIES

Form	:	Liquid
Colour	:	Clear solution
Specific Gravity	:	1.17 ± 0.02
Air Entertainment	:	Nil.
Chloride Content	:	Nil.
Compatibility	:	Can be used with all type of Portland and Slag Cements including sulphate Resisting Cement.
Consistency	:	“SUPAPLAST-MF” is formulated from carefully selected raw materials and is manufactured under control conditions to produce a consistent product.
HANDLING	:	“SUPAPLAST-MF” is formulated from chemicals which present no fire or health hazards.
STORAGE	:	If stored in unopened containers at normal ambient temperatures, a shelf-life of approximately 12 months could be expected.

METHOD OF USE

“SUPAPLAST-MF” is supplied ready for use. For maximum dispersion throughout the mix measured quantity of “SUPAPLAST-MF” should be added directly into the mixer at the time as the mixing water. On no account should be added to the dry cement.

RATE OF ADDITION

The optimum dosage should be determined by site trials with the particular concrete mix. As a guide the rate of addition is generally in the range of :

<i>Function</i>	<i>Dosage</i>
1) As superplasticiser for flowing concrete	200 to 600 ml per 50 kg of cement.
2) As high range water reducing admixture for high strength concrete (with large water reduction)	300 to 1000 ml per 50 kg of cement.
3) For early shutter stripping	200 to 800 per 50 kg of cement.

PACKING

“ SUPAPLAST-MF” is available in 25 and 100/200 litre metal/plastic container.

TECHNICAL SERVICE :

SWC group maintains a technical division with highly qualified technical personnel to investigate and advise on subjects related to Concrete and the Construction Industry. The Division can advise on the correct use and selection of right products at the right place.

SWC undertakes Consultancy Service for diagnosis and rehabilitation of distressed structures. SWC undertakes Contracts on turnkey basis for total Waterproofing System with guarantee

NOTE : This Technical data sheet is to be used as guidance only. Although the basic formulation of the product remains unchanged, production refinements arising from continuing research and evaluation programmes may occasionally result in marginal change in properties. The recommendation and properties of the product based on continuous monitoring of the product are not intended to infringe on other patents.

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