

MASTERPLAST RTPL 5

WATER REDUCING AND RETARDING PLASTICIZER

DESCRIPTION

MASTERPLAST RTPL-5 is a concrete set retarding and water reducing admixture. On addition to concrete it disperses the cement particles i.e. enhances the workability and also delays the set rate of concrete. This is chloride free and does not affect the reinforcement in concrete. It is based on modified lignosulphonates.

FEATURES / ADVANTAGE

- Delays the setting time of concrete & mortar
- Avoids cold joints in concrete
- Gives improved quality of concrete as it reduces bleeding and segregation. It also gives improved finish
- The extended set time permits transportation of ready-mix concrete over long distances
- It increases strength of concrete and mortar
- Improves workability and easier handling

TYPICAL APPLICATION

- It is particularly recommended for concreting in hot climates, long or difficult pours
- Can be used for mass concrete works.
- Can also be used for ready mix concrete.
- Suitable for slip forming for structures like silos, chimneys, cooling tower etc.

TYPICAL CHARACTERISTICS

- Nature : Single component, liquid
- Color : Dark Brown to Yellow Low Viscous Liquid
- Specific gravity : 1.195 ± 0.02 gm./cc
- pH value : 7.8
- Air entrainment : Approximately 1% additional air over control concrete mix.
- Chloride Content : 0.040% Max

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ENGINEERING DATA

Specification complies : Retarding Admixture
 BS 5075 part 1
 ASTM-C-494, type A&D

Trial result
 (May be taken as a reference only)

M-20 mix

Mix Constituents

Cement - OPC (IS 269 – 1989)
 Sand - 38% (IS 383 – 1970) Zone 2
 Aggregate - 62% (IS 383 – 1970)
 (5 mm to 20 mm)

Trail Mix	Cement Kg./m ³	Dosage Ltr. /50 kg.	W/C Ratio	Slump in mm.	Compressive strength Kg./cm ²		
					3D	7D	28D
Reference	350	Nil	0.55	50	150	220	320
Plasticized	350	0.15	0.55	110	145	225	325
Strength enhanced	350	0.15	0.50	55	165	242	374

Retardation Observed

At same W/C ratio - 2.5 to 3 hrs over control

At reduce W/C ratio - 2 to 2.5 hrs over control

DIRECTIONS FOR USE

It can be used for all cement types. The required quantity should be added to the gauging water before mixing with the concrete dry mix. The concrete should be mixed at least two minutes after addition of Masterplast RTPL-5.

DOSAGE

Normal dosage range is 0.1 to 0.25 liter/ 50 kg of cement. The optimum dosage and compatibility of the admixture with the locally available materials has to be ascertained by proper site trials. As an over dose of Masterplast RTPL-5 will give high retardation but ultimate strength will not be reduced.

CLEANING OF TOOLS AND EQUIPMENTS

Tools and equipment's can be cleaned with water.

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STORAGE AND SHELF LIFE

Store the material at cool and dry place (preferably at 30°C temp). Store under cover out of direct sunlight & protect it from extreme temperatures.

Shelf life is 1 year from the date of manufacture when stored in original sealed packaging.

PACKING

1 liter, 5 liter, 20 liter and 200 liter

PRECAUTIONS

- Do not mix it with dry cement.
- Add to mixing (Gauging) water or directly to the mix.
- Non-toxic, any splashes should be washed well with water.
- In case in contact with eyes, take medical advice.

DISCLAIMER

The above information and details herein are based on the tests conducted & experience on application and usage. The user is advised to carry out the test and take trials to satisfy on the suitability of the products and meeting his requirement considering the prevailing conditions prior to apply/ using it on larger area. As the conditions under which the products are used or transported are beyond our control. We would not hold ourselves responsible on its consequential non performance.