

MASTERPLAST ACPL 7

ACCELERATING PLASTICIZER FOR CONCRETE / MORTAR

DESCRIPTION

MASTERPLAST-ACPL-7 is a concrete plasticizer and set rate accelerator. On addition to concrete it disperses the cement particles which improves the workability and accelerates the setting time of concrete. It is chloride free accelerating admixture supplied as a brown color liquid.

FEATURES / ADVANTAGES

- Improves the workability and accelerates the setting time of concrete
- Provides rapid strength development
- Makes quick demoulding possible
- Reduces water requirements
- It accelerates the early stage of cement hydration process

TYPICAL APPLICATIONS

- Prestressed concrete
- Precast concrete
- Concreting in cold weather conditions
- Particularly effective in assisting the delaying effect of setting time & strength gain in lower temp regions

TYPICAL CHARACTERISTICS

- Nature : Single component, liquid
- Color : Brownish to straw color
- Relative density at 25°C : 1.250 ± 0.02 gms/cc
- pH Value : Min. 6
- Chloride content : 0.2% max. As per IS 6925
- Air entrainment : Approximately 1% additional air over control concrete mix

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SPECIFICATION COMPLIES

- IS: 9103 Accelerating admixture
- EN 934 PART 2
- ASTM: C – 494, Type – C

ENGINEERING DATA

Trial batch mix design M-20 concrete (taken as a reference only)

Ingredients % by wt.

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

Trial No.	Cement Content kg/m ³	W.C Ratio	Dosage in liter. / 50 kg. Cement	Setting Time in Hours		Slump in mm	Compressive Strength kg./cm ²			
				IS	FS		1D	3D	7D	28D
1	310	0.60	Nil	5 : 30	7 : 40	55	90	144	235	320
2	310	0.55	1.2	4 : 0	6 : 00	60	140	210	285	355

*Setting time as per Indian standard IS: 8142

DIRECTION FOR USE

METHOD FOR USAGE

It can be used with all type of standard cements. It is compatible with all other Choksey Chemicals admixture in the same concrete mix. MasterPlast-ACPL-7 of required quantity should be added to part of gauging water before mixing with concrete made with remaining gauging water for better results. The concrete should be mixed for at least a minute after addition of MasterPlast-ACPL-7. Thus the admixture should be added to the concrete separately with the mixing water & should not be directly mixed together prior to addition. Contact the Choksey chemical technical service department for advice on use with sulphate resisting cements & cement replacement materials.

DOSAGE

The normal dosage range is 0.5 to 1.2 liter per 50 kg of cement. The optimum dosage and compatibility of MasterPlast-ACPL-7 with the locally available materials has to be ascertained by proper site trials using site raw materials. Because of variations in job conditions, concrete materials & climatic conditions dosage may vary in such cases, contact our CCPL technical

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service department. An overdose of this further accelerates the set rate of concrete but does not affect the ultimate strength of concrete.

Good curing practices should be maintained such as water spray wet hessian or curing with spray applied curing compounds. The use of our spray applied curing compounds products Mastercure RB2M & Mastercure WB2M will prevent the early water loss from the surface of the flat works such as pavements in dry, windy and hot climates.

CLEANING OF TOOLS AND EQUIPMENTS

Tools and equipment's can be easily cleaned with water.

STORAGE AND SHELF LIFE

Store the material at cool and dry place (preferably at 30⁰C 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.

Important: Reseal container carefully after use and before disposal.

PACKING

1 liter, 5 liter, 20 liter, & 200 liter containers as per requirement.

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.
- Rubber gloves and safety glasses are to be used.

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.