Talrakplast® SA

Chloride free set accelerating cum water reducing admixture for concrete and mortar

The Construction Alchemists

Description

Talrakplast® SA is an accelerating liquid admixture for cement concrete and mortar to be added at the mixing plant for shortening the setting time of concrete and mortar. It is totally free from chlorides .

Features and benefits

- Faster finishing times even in cold weather.
- Chloride free non corrosive formulation hence can be used in reinforced and prestressed concrete.
- Optimizes mould usage
- Faster finishing of masonry walls due to accelerated setting time of mortar
- Also increases the workability and cohesiveness of mortar

Primary Application

Talrakplast® SA is recommended for all reinforced, post tensioned and prestressed concrete where setting time of concrete should be shortened. The delay in setting of concrete in the cold weather can be compensated when Talrakplast® SA is used in the concrete mix. When the concrete is to be placed in the water logged areas use of Talrakplast® SA will make the concrete set faster, which otherwise will be delayed due to water. It will be useful in masonry mortars to give early setting of the mortar to turnout larger volume of work.

Standards compliance

Talrakplast® SA meets the requirement of BS 5075 Part 1 and ASTM C494 Type C and IS:9103

Technical Properties

Appearance	Light straw coloured
Specific Gravity at 30° C	1.2 - 1.3 at 27°C
PH	9 -11
Chloride Content	Nil, as per BS:5075
Air entrainment	Nil

Caution

Talrakplast® SA shall not be used as plasticizer or water reducer. It shall not be added to concrete where very long hauling of concrete is expected. If the transit mixer is held up in the traffic or delayed due to break down, the concrete should be unloaded at once to avoid its setting in the transit mixer. If unloading is not feasible immediately, excess water is added into the mixer while rotating the drum to counter the accelerating effect.

Curing

Concrete admixed with Talrakplast® SA shall be palce, compacted and cured like normal concrete. Talrakcure AS, curing compound can be used as an alternative curing method for water curing.

Application Instructions

Dosage

The recommended dosage of Talrakplast® SA for a particular concrete mix will depend on the level of acceleration of the setting time desired. However as a guiding dosage 2-3 % by weight of Portland cement is recommended. The dosage may be different for concrete with OPC and the concrete with cement containing SCMs such as fly ash, GGBFS etc. It is recommended to conduct a lab trial with the given concrete mix to optimise the dosage.

An overdose of double the recommended dosage of Talrakplast® SA will slightly reduce the initial setting time of concrete. However, will not alter the final strength or characteristics of the cured concrete or mortar.

Mixing

As Talrakplast® SA may also act slightly as a plasticizer, due to secondary effect, reduction of water from the control mix may be considered. This will help to increase the compressive strength. However, a trial mix is recommended.

Dispensing

An appropriate and accurate dispenser should be employed in the batching plant. Talrakplast® SA shall be added to the wet mix. The dispenser should have a stirring mechanism in the drum.

Estimating

Packaging

Talrakplast® SA is supplied in 5 litre, 20 litre can and 200 litre barrels.

Storage

Talrakplast® SA has a minimum shelf life of 12 months when stored under normal temperature. It should be protected from extreme temperature and preferably stored under shade.

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Precautions
Health and Safety Instructions

Talrakplast® SA is non-toxic. Use gloves while handling the product. Any splashes should be washed immediately with water. Splashes on the eye should be immediately washed with water and medical advice should be sought.

Fire

Talrakplast® SA is non flammable. But, should be stored away from combustible materials.

Effect of Talrakplast® SA on setting time—typical values (trend)

Curing Temp.	Talrakplast® SA Dosage per 50 kg cement	Initial setting time, minute	Final setting time, minutes
10 ° C	Nil (Control)	240	360
	1.25	190	270
20° C	Nil (Control)	200	240
	1.25	160	190
25° C	Nil (Control)	150	220
	1.25	90	120
30° C	Nil (Control)	120	195
	1.25	75	100

Effect of Talrakplast® SA on compressive strength (Typical values— strength gain trend)

Curing Temp.	Compressive strength MPa					
	10 hrs	18 hrs	24 hrs	3days	7days	28 days
10° C	_	_	3	8	20	27
20° C	_	3	6	15	25	35
25° C	2	5	8	20	28	40
30° C	3.5	6	9	25	32	45

Talrak Construction Chemicals Pvt. Ltd.
An ISO 9001:2015 Certified Company

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