



HIND SET RP (AF)

PRODUCT DATA SHEET

ALKALI FREE SHOTCRET/GUNITE LIQUID ACCELERATOR

DESCRIPTION

Hind Set RP (AF) is an alkali-free set accelerator available in Liquid form for use in wet shotcreting /Guniting. The dosage of the liquid admixture varies as per the desired setting and hardening time. **It is not freezable below Zero Degrees Celsius** and is regularly being used effectively in sub zero temperatures in India & Abroad.

USES

Hind Set RP (AF) is used and suitable for all applications to give high early strength, good final strength and achieving higher thickness in layers of sprayed concrete.

- Wet shotcrete.
- Grouting (back filling)
- Tunnels, Galleries, Mining
- Slope stabilization, Pit protection.
- Embankment and excavations
- Concrete repair work
- Shoring operation
- Swimming Pool
- It can also be used for quick setting of cementitious grouts used in TBM tunnel lining and backfill concreting.

ADVANTAGES

Hind Set RP (AF) is advantageous and ideal for wet shotcreting for rock stabilization..

- Completely free from alkalis
- Allows spraying to take place even on wet substrate subject to slight infiltration
- Speed up the work and contribute to excellent water tightness of the sprayed concrete linings
- Improves overhead spraying and reduces rebound.
- Completely free from chloride, nitrate and alkali aluminate, alkali silicate, alkali carbonate based formulations.
- Eliminates alkali silica reaction even with reactive siliceous aggregate.
- The quick setting property allows wet sprayed concrete to be done in thick layers hence rapid work progress is achieved.
- **It is not freezable below Zero Degrees Celsius.**

APPLICATION

Hind Set RP (AF) to be added by means of a suitable dispensing pump.

PROPERTIES

Aspect	Liquid aqueous dispersion
Specific Gravity	1.43 ± 0.05 at 27 ⁰ C
Solubility	Freely mixable with water
pH	3 ± 1
Chloride Content	<0.1%
Alkali Content	< 1%
Hind Set RP (AF) is Sulphate Resistant	
Hind Set RP (AF) is not based on Ligno Sulphonate	

MATERIAL SPECIFICATION

The alkali -free shotcrete accelerator, **Hind Set RP (AF)** is a non-caustic, high solid content admixture. Due to its specific gravity greater than 1.4, the rebound loss for wet shotcrete is minimized and by use of the same more than 150mm thick layer of wet shotcrete is achieved in a single operation. High early strength (>12 Mpa at 24 hours) and quick final setting (< 15 minutes) is achieved when used in wet shotcrete. It is always advisable that the substrate is clean and free from loose particles and the cement used is fresh or otherwise, if the cement is old the setting properties of the mix is affected. The use of **Hind Set RP (AF)** is very sensitive with different types of cements. Generally Portland cements is used to give good and fast setting. It can also be used with blended & Fly-ash /Slag cements. It is always recommended to check the setting time and 24 hours strength of the cement to be used in the project and the evaluation of the same to be done as per EFNARC European Specification for Sprayed Concrete, Appendix 1, Clause 6.3. The test results mentioned as follows is for guidelines only. **(Setting time conforming as per ASTM C 1102-94 standard)**

Initial Set	Final Set	24 hours strength	Remarks
2-2.5 mins	5-8 mins	17-20 Mpa	Good
5-6 mins	8-13 mins	12-16 Mpa	OK
>10 mins	>15 mins	<10 Mpa	Poor

MIXING GUIDELINES

Hind Set RP (AF) when used for Wet Shotcreting, the Water : Cement ratio should be less than 0.45 and for achieving high early strength , faster setting and better durability W/C ratio recommended is 0.40.

DOSAGE

The dosage of **Hind Set RP (AF)** to be finalized by site trials, however the recommended dosage ranges from 4-10% by weight of binder materials used. Overdosing to a tune of more than 10% results to decrease in final strengths

SHELF LIFE

Best before **6 months** from the date of manufacture. Should be stored in a cool and dry place away from direct sunlight at temperature ranging between 2^o C (Min.) and 45^o C (Max.).

PACKING

300Kg. in HDPE container or as required

HANDLING PRECAUTION

Hind Set RP (AF) is non-toxic, if contact with the skin happens it must be washed with water. If contact with eyes occurs, wash well immediately with water and seek medical advice.

Note:

- **Hindcon Chemicals Limited** maintains a team of technically trained professionals to provide full support to your problems in construction, and recommend the correct product to suite your specific requirements. Our authorized applicators can attend your site for application of the products.
- The content of the Technical datasheet are for general information and guideline. The result shown here are generated from our laboratory or from our site experiences.
- Quality of our products are maintained as per ISO9001:2008 recommendations and continuous researches. The behavior can change as per the prevailing conditions at the time of applications.
- Since **HINDCON CHEMICALS LIMITED** has no control over the use to which the users may put the material, it does not claim or warrant that in the user's particular circumstances, the result that the user will obtain from the product will be the same as those described in this communication or that the user will find the information or recommendations complete, accurate or useful. The client must test and ascertain the safety and fitness for the product for use.
- The right to change the properties of the products is reserved with us. The proprietary rights of third parties must be observed. All orders are accepted subject to the terms of sale and delivery. Users must always refer to the most recent issue of the latest Data Sheet for the product concerned, copies of which will be supplied on request.

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