

SmartCare HYPERSHOT AF 100

Asian Paints SmartCare HyperShot AF 100 is an innovative alkali-free accelerator that empowers concrete mixes to achieve rapid early strength without compromising long-term durability.

PRODUCT DESCRIPTION

Hypershot AF 100 alkali free accelerator is used for wet mix sprayed concrete processes in the tunneling and mining industry. The product is applied where initial ground support is needed or where a permanent lining has been designed (such as for single shell tunnel lining). Hypershot AF 100 is a liquid high performance set accelerator for sprayed concrete applications. Hypershot AF 100 has been developed primarily to be used in sprayed concrete mixes containing pure OPC mix. However, it can also be used with OPC & Fly Ash mix. By adjusting the dosage, the setting times and rebound can be reduced providing efficient working environment.

FEATURES AND BENEFITS

- High build enables faster coverage with minimized slump.
- Compatible with most of the superplasticizers
- Can be applied up to 100mm in one application to vertical surfaces including overheads based on volume/weight of aggregate
- Non caustic leads to safer handling / operating conditions
- Low rebound - controlled set allows new material to be embedded in applied mortar
- Chloride free liquid
- 28 days strength not adversely affected
- Minimal dust production during application

PRODUCT DETAILS

STANDARD COMPLIANCE:

Hypershot AF 100 meets the requirements of EN 934-5 "Admixtures for sprayed concrete", ASTM C1141/C1141M "I Standards Specifications for Admixtures for Shotcrete"

PERFORMANCE TEST DATA:

Appearance	A Turbid Suspension
Specific Gravity	1.43
ph	2.6
Chloride Content	Nil
[Na ₂ O] eqv. (%bw)	<1%
Thermal Stability	5 °C to 35 °C
Viscosity	>400 mPa.s

APPLICATION METHOD

Mechanism:

The optimum dosage for Hypershot AF 100 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. This allows the optimization of admixture dosage and mix design and provides a complete assessment of the concrete mix. However, for optimum performance, the w/c ratio should be designed below 0.45. This ensures rapid setting and lower dosages.

Dosage:

Typically, 5 to 10% (w/w of cementitious) dosage is suitable for spraying layers of 100 mm in a single pass. A pumpable mix design is required to produce a high workability mix without risk of bleeding and segregation of aggregates. The correct quantity of Hypershot AF 100 is directly added to the concrete at the time of shotcreting. Note: Dosing of Hypershot AF 100 may increase in case of seepage or running water areas.

Technical Support:

Asian Paints provides a technical advisory service for on-site assistance and advice on mix design, admixture selection, evaluation trials and dispensing equipment.

Over Dosing:

An overdose of double the intended amount of Hypershot AF 100 will result in increased setting of the mix before it reaches the surface to be sprayed. It will also result in a loss of strength

Pack Size:

Available in Bulk pack/tanker

Shelf Life:

12 months from date of manufacturing when stored at recommended conditions in unopened drum.

SAFETY INSTRUCTIONS

- Store the container with the lid tightly closed in an upright position, in a cool, dry place.
- Keep out of reach of children and away from eatables.
- The pails/drums should not be used for storing food items.
- May be harmful if swallowed. In case of ingestion, seek immediate medical attention.
- In case of skin contact immediately wash skin with soap and plenty of water. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice if irritation develops or persists.
- Do not breathe vapor or spray. It is recommended to wear proper personal protective equipment during material handling & wear a suitable nose pad during sanding and surface preparation to avoid dust inhalation.
- Left-over drums/pails should not be disposed of in soil/drains. Consumers should consult an authorized local recycling agency for the disposal of pails.