

# Technical Data Sheet

## CASTECH HAP-100

### HIGH PERFORMANCE POWDER ACCELERATOR FOR DRY MIX SHOTCRETE

Complies with ASTM C 1141 Type1 Grade 9 Class B

#### 1.0 Description

A ready to use alkali free accelerator in powder form for dry shotcrete mixes. It allows spraying to take place even on wet surfaces subject to slight infiltration.

#### 2.0 Uses

CASTECH HAP-100 can be used with mortar and concrete.

- Tunnels and galleries
- Securing rock-faces
- Embankment and excavations
- Strengthening concrete structures
- Thin section concrete shells
- Swimming pools
- Concrete repair-work

#### 3.0 Advantages

- Castech HAP-100 reacts and facilitate the hydration process which offer highly acceleration of strength development within first 24 hours.
- Water tightness is improved.
- Reduce the time required for the job.
- Rebounding is minimized.
- Better adhesion to areas of slight seepage.
- Reinforcement is not affected and non corrosive due to lack of chloride compounds.
- Overhead spraying is improved.
- Can be used with all the types of cements available in Sri Lanka
- High early strength gain.

#### 4.0 Properties

<b>Composition</b>	Mixture of special Inorganic substances
<b>Packaging</b>	25.0 kg
<b>Appearance / Colour</b>	White fine powder
<b>Shelf life</b>	6 months from date of production if stored in original unopened, undamaged sealed pack.
<b>Storage conditions</b>	Store in dry clean condition at temperatures between +5°C and +40°C. Protected from direct sunlight and frost.
<b>Total Chloride Ion Content</b>	No added chlorides

**5.0 Instructions for use**

- The shotcrete to be conveyed is fed into the hopper of the machine as dry condition. Following methods could be used for the dry spray process.
- Place **CASTECH HAP-100** directly into the hopper of the shotcrete machine. At the start of the shotcrete application correct amount of water must be added at the nozzle to achieve the required properties.
- **CASTECH HAP-100** could be added dry by a dosing unit and the correct water to the conveying stream at the nozzle.

**6.0 Dosage**

**CASTECH HAP-100** The actual correct dosage must be determined by preliminary testing. For layer thicknesses of up to 15 cm in one pass, dosage is between 3% and 10% of weight of binder. .

**7.0 Packaging**

**CASTECH HAP-100** is available in the plastic compound bag packing, with a bag 25 kg or 50 kg.

**8.0 Storage**

It has a shelf life of 6 month if kept in a dry and cool environment in its original packing. Avoid direct sunlight, and pay attention to anti moisture and damaged packaging. And it should be placed on the pallet off the ground in a dry and ventilated room.

**9.0 Precautions**

- **CASTECH HAP-100** performance depends on cement content, age, type and substrate.
- **CASTECH HAP-100** is also dependent on the temperature of the shotcrete and the application area, and shotcrete method used.
- The performance of **CASTECH HAP-100** performance depends on, the amount of water added during spraying.

**10.0 Health & Safety**

As with all chemical products, caution should be always be exercised. Protective clothing such as gloves and goggles should be worn. See packaging/MSDS for instructions.

Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

**11.0 Technical support**

CasTech offers full technical support package to specifiers, contractors and end users, as well as technical assistance on site and after sales constructions.

CasTech provides detailed method statements on all its products for use in various applications. These must be referred prior to starting the work. The information above is summery intended for guidance only.

The information contained herein is to the best of our knowledge, belief and accuracy. However, hence the conditions of handling and usage are beyond our control. We make no warrantee of results and assume no responsibility or liability for any damages or consequential damage incurred by the use of the product. Our products are sold on the condition that the user shall evaluate them as well as our recommendations. To determine their suitability for a particular purpose the user is solely responsible for the selection of CasTech products.