

DENKA SC-1

Amorphous Calcium Aluminate based quick hardening additive

Description

DENKA SC-1, which is a special amorphous calcium aluminate based accelerator introduces veryfast setting time and very high early strength to mortar and concrete.

It can be used for Tile Adhesive Mortar, Self Leveling Mortar, Repairing Mortar, Concrete for Urgent Work, and so on which is required higher early strength development. Setting time can be controlled by using retarding agent up to one hours.

Advantage

- Minimize the cracking caused by drying shrinkage (Shrinkage compensation)
- Chemical Pre-stress
- Increase water tightness

Applications

- Self-Leveling mortar
- Pre-cast Concrete
- Non-shrink Grout
- Tile adhesive mortar
- repair/ rendering mortar
- Dry process shotcrete

Packaging

- 20kg paper bags
- 1,000kg bulk bags

Technical data

Chemical composition

| | |
|--------------------------------|-------|
| CaO | 42.6% |
| Al ₂ O ₃ | 29.7% |
| SO ₃ | 24.9% |

Physical Properties

| | |
|-------------------|--|
| Appearance | White powder |
| Physical state | Solid |
| Odour | Odorless |
| Specific gravity* | 2.90 – 2.96 g/cm ³ |
| Blaine fineness* | 6,000 or more g/cm ² |
| pH | 11 - 13 (Dissolved water) |
| Water solubility | Partially soluble in water. Will solidify over a period of hours if moistened or wet |

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<http://www.denka.co.jp/eng/>

Addition level

- Properties depend on the DENKA SC-1 to OPC ratio. Typical addition levels are 10 - 30% replacement by weight on the cement weight depending on the properties required. Due to the fast setting nature of DENKA SC-1 it is highly recommended that laboratory trials should be carried out to determine the correct addition level and also to optimize the retarding/accelerating balance.
- Adding too much DENKA SC-1 will result in extremely rapid set times and very high early strengths.
- Important - DENKA SC-1 has extremely fast setting properties. Therefore, to achieve acceptable setting times, a suitable retarder will have to be incorporated at slightly higher levels than those normally recommended.

Precautions for handling

- Refer to Material Safety Data Sheet (MSDS) before use
- Protective gear (goggles, mask, gloves, and rubber boots) should be worn during handling
- Do not dispose of DENKA SC-1 in drains
- Product in open bags should be used up completely or the bag should be resealed for storage
- The product should be stored in a dry area, indoors, and out of direct sunlight
- For further information, please contact DENKA

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