# **DENKA SUBSHOT MORTAR-S**

High Performance Premixed Quick Hardening Spray Mortar for Dry Process

## **Description**

**DENKA SUBSHOT MORTAR-S** is a pre-mixed sprayed mortar with high early strength, quick setting properties, and dust-suppression functionality; effectively controlling dust emissions and improving construction work environment.

A system equipped with mixing and pumping equipment is required.

**DENKA SUBSHOT MORTAR-S** can also be used in conjunction with **DENKA NATMIC AF-S** for faster setting and lower dust generation.

#### **Features**

- · Very high early strength, quick hardening
- Minimized dust generation and rebound
- Excellent compressive strength, bond strength and flexural strength
- · Excellent resistance to inflow
- Compact system design and ease of operation
- · Applicable for dry shotcreting
- Versatile; can be used as or in conjunction with DENKA NATMIC AF-S

## **Applications**

- Tunnel linings and slope stabilization
- Repair of tunnels and underside of concrete structures
- Support for small cross-section tunnels
- · Reinforcement for unconsolidated ground
- · Ground support after TBM excavation

#### **Packaging**

DENKA SUBSHOT MORTAR-S

:25kg bag

• DENKA NATMIC AF-S (as required)

:260kg drum

## **Shelf Life**

- 6 months from production date
- Determine the production date by reference to the lot number. A lot number of "1AXXX" corresponds to production in Jan 2001; "2BXXX" to Feb 2002 and so on.



# **Physical Properties**

| Initial setting (min) | Compressive strength (N/mm²) |        |
|-----------------------|------------------------------|--------|
|                       | 12h                          | Day 28 |
| < 10mins              | 10 MPa                       | 35 MPa |

## **Mixing Procedures**

- Continuous mixing and pumping equipment is required for shotcreting. Mixing time is dependent upon the distance from inlet to nozzle.
- Introduce DENKA SUBSHOT MORTAR-S and water at the nozzle for mixing.

Mix design

**DENKA SUBHOT MORTAR-S**: 25kg

Water : 12% ~ 14% (3 ~ 3.50kg) **DENKA NATMIC AF-S** : 2% ~ 4% (0.5kg ~ 10kg)

## **Spraying Placement**

Spray continuously and uniformly to the required thickness. Multiple layer spraying is not recommended.

## **Yield & Coverage**

- 13.7 litre per bag (depending on water addition)
- 0.27m<sup>2</sup> per bag at 50mm thickness

Figures above are arbitrary. Actual coverage will depend on site and surface conditions.

#### **Handling Precautions**

- Refer to the Safety Data Sheet (SDS) before use.
- Wear protective gear (goggles, mask, gloves, and rubber boots) while handing the product. Do not dispose of the product in drains.
- Once opened, the product should be used up completely. Otherwise, reseal 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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