

# S | Cement-Based Masonry Mortar (Type S)

## Product Description

MOONA-S is a preblended cement-based masonry mortar material which to be used as a laying mortar in masonry works.

MOONA-S is applied onto internal or external applications for fair-faced blocks, volcanic lightweight block, bricks and other types of concrete masonry units with fine or rough texture.

MOONA-S is composed of hydraulic binders, selected manufactured aggregates, and special additives to provide long water retention, excellent bonding strength and superior workability.

## Features/Advantages

- Pre-blended dry material that only requires the addition of potable water at site.
- Factory controlled ensuring high quality product with assured consistency.
- Designed for external and internal applications in humid and dry conditions.
- Easy to apply with superior workability and long water retention.
- Excellent resistance to harsh weather conditions providing excellent durability.
- Strong bonding and adhesion on a variety of masonry types.
- In accordance with international specifications.

## Conformity with Standards

MOONA-S conforms to the following standards:

- ASTM C270
- ASTM C144
- BS EN 1015-12
- ASTM C780
- BS EN 1015-3
- SASO ASTM C270/2014
- BS EN 998-2
- BS EN 1015-6
- ASTM C150
- BS EN 1015-11

## Technical Data<sup>1</sup>

|                                   |                             |
|-----------------------------------|-----------------------------|
| Appearance                        | Grey powder                 |
| Aggregate Size                    | Up to 2 mm                  |
| Bulk Density                      | 1.4 ± 0.1 kg/l              |
| Wet Density                       | 2.0 ± 0.1 kg/l              |
| Working life                      | 60 – 90 min                 |
| Setting Time                      | 3 to 4 hours                |
| Compressive Strength <sup>2</sup> | ≥ 12.4 N/mm <sup>2</sup>    |
| Flexural Strength <sup>3</sup>    | ≥ 1.5 N/mm <sup>2</sup>     |
| Bonding Strength <sup>4</sup>     | ≥ 0.15 N/mm <sup>2</sup>    |
| Water Retention <sup>5</sup>      | ≥ 75%                       |
| Air Content <sup>6</sup>          | ≤ 12%                       |
| Mortar Class <sup>7</sup>         | Type S, Type M10            |
| Yield                             | Approx 570 l/t              |
| Coverage <sup>8</sup>             | Approx 37 m <sup>2</sup> /t |
| Packing <sup>9</sup>              | Bulk, jumbo and small bags  |
| Shelf Life <sup>10</sup>          | 12 months                   |

<sup>1</sup> The above technical data are generated under laboratory conditions, some variations are expected due to weather, site, and application conditions which are beyond the control of the manufacturer.

<sup>2</sup> Compressive strength at 28 days as per ASTM C109.

<sup>3</sup> Flexural strength at 28 days as per ASTM C 348.

<sup>4</sup> Bonding strength at 28 days (EN 1015-12).

<sup>5</sup> Water retention as per ASTM C1506.

<sup>6</sup> Air content (EN 1015-7).

<sup>7</sup> Type M as per ASTM C270. Type M15 as per EN-998-2

<sup>8</sup> The figure mentioned above is based on block size 20 x 20 x 40 cm with a mortar layer thickness of 10 mm and is meant as a general guideline only. Actual coverage depends on application method, substrate type and nature, and material wastage.

<sup>9</sup> Jumbo bags are 1 ton each. Small bags are 50 kg each.

<sup>10</sup> Under dry shaded conditions and in its original unopened packing.

## Application Instructions

### Surface Preparation

Surfaces must be clean, sound, and free from oil, grease or any material that may impair the adhesion and bonding of MOONA-S with the substrate surface. Block surfaces should be prewetted with a clean potable water without excess free surface water before applying MOONA-S.

### Mixing

- **Mixing Using Power Machine:** adjust flow meter to obtain a cohesive mix with appropriate consistency.
- **Mechanical & Manual Mixing:** Add 50 kg of MOONA-S to 9 ½ – 10 ½ liters of clean potable water (always add the material to water, not water to the material). Mix with a low speed electrical drill fitted with a suitable paddle until a uniform consistency is achieved (generally 3 to 5 minutes of mixing are required).

### Application

Apply a thick layer of MOONA-S on the surface and joints where the blocks are to be mounted. Place the block onto the applied mortar ensuring good contact between the block and masonry mortar. Verify the leveling and rake any excess material.

### Curing

Cure the applied MOONA-S by spraying clean potable water 2 to 3 times daily for at least three days.

## Precautions & Limitations

Clean the tools with water before product hardening. In case of hardening, tools should be cleaned mechanically. Do not re-temper the mixed material. Do not apply MOONA-S at an ambient temperature lower than 5°C. Do not mix MOONA-S with any other material not recommended by Saudi Readymix. Protect MOONA-S from direct sunlight, wind and rain during application. Saudi Readymix has no responsibility for the defects due to the improper or non-recommended use of the product. For further information contact Saudi Readymix.

## Storage

Bags should be kept sealed, placed on wooden pallets above ground level and covered by a waterproof tarpaulin.

## Health & Safety

Since MOONA-S is a cement-based product so it is a highly alkaline material. Care should be taken during the use and storage of MOONA-S to avoid direct contact with eyes and skin. The use of protective gloves and goggles during application is recommended. Wash the skin with soap and water in case of contact. In case of contact with the eyes, wash immediately with plenty amount of clean water and seek medical advice.

MOONA-S is a noncombustible material as per BS EN 13501-1 (Class A1).

### Legal Disclaimer:

The terms and conditions of Saudi Readymix legal disclaimer applies and are an integral part of this product data sheet. Please refer to the legal disclaimer document for further information.