

Refractory mortar for laying and grouting firebricks

Description

ISOMAT AK-FIRE is a cement-based mortar for firebricks. It contains high alumina cement, and quartz aggregates of selected particle size. It provides excellent resistance to high temperatures and extensive temperature changes, high initial and final adhesion and resistance to moisture.

It is certified with the CE marking, according to EN 998-2, as a designed general purpose masonry mortar, for external use, in elements subject to structural requirements. Certificate number: 0906-CPR-02412008.

Fields of application

Suitable for laying and grouting all kinds of firebricks in places where high temperatures are developed (fireplaces, wood ovens, stoves, barbecues, chimneys etc.). Ideal for repairing damaged mortar joints and firebricks. Suitable for indoor and outdoor applications.

Technical data

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| Form: | cementitious powder |
| Color: | grey |
| Water demand: | 4.75 l/25 kg bag |
| Bulk density of dry mortar: | 1.55 ± 0.10 kg/l |
| Bulk density of fresh mortar: | 1.80 ± 0.10 kg/l |
| Application temperature: | from +5°C to +35°C |
| Compressive strength: (EN 1015-11) | Category M 25 |
| Flexural strength: | > 6.0 N/mm ² |
| Initial shear strength: (tab. value) | 0.15 N/mm ² |
| Reaction to fire: (EN 13501-1) | Class A1 |

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|---|--|
| Density (dry hardened mortar): (EN 1015-10) | 1,700 kg/m ³ |
| Water absorption: (EN 1015-18) | 0.3 kg/m ² min ^{0.5} |
| Water vapor permeability: (EN 1745, tab. value) | μ 15/35 |
| Thermal conductivity: (λ _{10,dry}) (EN 1745, tab. mean value; P = 50 %) | 0.75 W/mK |
| Pot life: | at least 3 h |
| Temperature resistance: | up to +1200°C |

Directions for use

1. Substrate preparation

Firebricks should be clean, free of dust, mud, loose particles etc. Before application, the firebricks must be thoroughly dampened.

2. Application

ISOMAT AK-FIRE is added into water under continuous stirring, until a mixture of the desired workability is formed. The product is applied by hand using a trowel. For the joint formation, it is recommended to use plastic or metallic spacers.

In case of using ISOMAT AK-FIRE for pointing, the joints are filled with the product using a trowel and the surface is smoothed with a very thin trowel or a special blade. At the same time, the finishing work is done with a slightly wet sponge. Outdoors or in case of high temperatures, repeated watering with a sponge is recommended, to avoid quick drying of the grout.

Consumption

The consumption of ISOMAT AK-FIRE depends on the dimensions of the firebricks and the joint width. Indicatively, for firebricks with dimensions 20x10x3 cm and joint width 1 cm the consumption is about 5 kg/m².

ISOMAT AK-FIRE



Packaging

ISOMAT AK-FIRE is supplied in bags of 5 kg and 25 kg.

Shelf-life - Storage

- 25 kg paper bags:
12 months from production date
 - 5 kg plastic bags:
18 months from production date
- The above information is valid, if the product is stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- The fireplace or the oven should not be used, until the mortar has developed sufficient initial strength and, preferably, at least one week after the end of the application.
- Consult the directions for safe use and precautions written on the package.



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12

0906-CPR-02412008

DoP No.: ISOMAT AK-FIRE/1251-02

EN 998-2:2010

Designed general purpose masonry mortar for external use in elements subject to structural requirements

Compressive strength: Category M 25

Initial shear strength: 0.15 N/mm² (tab. value)

Reaction to fire: Class A1

Density (dry hardened mortar) 1,700 kg/m³

Water absorption: 0.3 kg/m²min^{0.5}

Water vapor permeability: μ 15/35 (tab. value)

Thermal conductivity: ($\lambda_{10, dry}$) 0.75 W/mK (tab. mean value; P = 50 %)

Durability (against freeze/thaw): evaluation based on provisions valid in the intended place of use of the mortar

ISOMAT S.A.

BUILDING CHEMICALS AND MORTARS

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