NUCLASIT 2.4 Fire and radiation protection mortar

Fibre-free dry mortar consisting of hydraulic bonding agents and heavy aggregates; mortar class M 5 resp. II a.

Product description

Fields of application

Radiation protection mortar for filling openings of cable and pipe penetrations in floors and walls, also suitable as filling material for door frames. To be used in nuclear installations, reprocessing plants and plants with radiation protection requirements in accordance with radiation protection regulation (StrlSchV) and Roentgen regulation (RöV).

Product features

One-component, hydraulically hardening; applied by spraying, pressing and manual installation; free from fibres, phenols and halogens, ageing resistant.

Fire rating of systems

Up to 2 hours

Applicability certificate

Tested and approved according to national and international standards as e.g.:
DIN V 18580 and DIN EN 998-2,
other standards on request

Pipes

Cables

Technical Data

Handling

- Application temperature > +5 °C
- Processing time app. 3 - 4 hours
- Ultimate strength and setting-off reached after app. 28 days
- Surfaces must be firm and free from adhesion-reducing substances and dust.
  Absorbent surfaces are to be pre-wetted with water.
- The consistency of the mortar has to be adjusted in such a way that all openings are cavity-free filled.

Ordering information

Bag of 30 kg

Storage

Cool and dry.

Safety instructions

Please refer to our MSDS (safety data sheet).

Technical data

Colour	reddish-grey
Gross density (wet mortar)	2,800 - 3,100 kg/m³
Gross density (dry mortar)	2.50 - 2.9 kg/dm³
Pressure resistance	18 - 22 N/mm²
Bond strength	0.5 - 0.8 N/mm²
Compressive strength within the mortar joints	3 - 4 N/mm²
Consumption	~ 3 l water + 30 kg dry mortar ≈ 11 l ready-to-use wet mortar ≈ 11 l volumes after curing time

Radiology

No radiation-induced damages of serious kind determined according to irradiation table (stage 3 and stage 4) during the irradiation with gamma-rays.

Attenuation measurement

Attenuation measurements accomplished at insulating boards made of mineral mortar NULASIT 2.4 (plates 55 x 55 x 5 cm). The shield effect of the insulating boards is comparable with Barite concrete with a density of 3.5 g/cm³.

Pressure resistance examination

The determined pressure resistances according to DIN 18550 of unirradiated and irradiated radiation protection mortar NUCALSIT 2.4 is comparable.

Applied systems

- Nuclasit