

Product Information

Dolit FQS

KI.FU.005 | 09/02/2022



PRODUCT GROUP

Mortar - Synthetic resin

BINDER BASE

Furan resin, aldehyde-free

PROPERTIES / APPLICATION

Mortar based on a modified furan resin and a carbonaceous filler for easy jointing of acid-resistant ceramic tiles, bricks or carbon bricks using the slurry method.

Due to its very good chemical resistance, especially to solvents and basic chemicals, **Dolit FQS** is the product of choice for jointing tile linings that are subject to high thermal and chemical loads at the same time.

- Temperature resistance
 - Up to 180 °C
 - The temperature resistance is basically dependent on the individual chemical stress.
- Very high chemical resistance to a wide range of media, such as various inorganic and organic acids and alkalis, greases, oils and fuels.
- Excellent adhesion to ceramic tiles, bricks or carbon bricks.
- Electrically conductive (see **Testing the electrostatic discharge capacity** ► 3).

SYSTEM DESIGN

Dolit FQS mortar mass ► 2]

PHYSICAL DATA

Physical property	DIN	ASTM	Value	Unit
Density	DIN EN ISO 1183-1	ASTM D 792	1.5	g/cm ³
Shore D hardness	DIN 53505	ASTM D 2240	> 60	Shore D
Flexural strength *	DIN EN ISO 178	ASTM C 580	30	MPa
Compressive strength *	DIN EN ISO 604	ASTM C 579	70	MPa
Modulus of elasticity *	DIN EN ISO 178	ASTM C 580	3.0 × 10 ³	MPa
Electr. leakage resistance	DIN EN 14879-6 At >70% relative humidity	ASTM F 150/98	≤ 10 ⁶	Ω

* Mean value, determined on annealed samples

PRECONDITIONS

The substrate, ambient air and Dolit materials must be in the temperature range between 10 °C and 30 °C during application. The optimum processing temperature is 20 °C. Higher and lower temperatures affect the working time and consistency of the composition. Consumption and application performance may change as a result.

During application, the substrate must be kept absolutely dry. No moisture (condensate, mist, etc.) may get onto the surfaces to be protected.

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Unevenness must already be levelled out in the substrate.

Distance to dew point has to be at least 3 K, at a relative humidity of above 70 % at least 5 K.

The construction site must be protected from draught and direct sunlight.

The hollow-joint tiling must be clean, dry and chemically neutral. The side surfaces of the tiles must be free of mortar material.

The open joint should have a rectangular cross-section, the width should be 5 to 8 mm, the depth 10 to 40 mm (from a depth of 20 mm, it should be jointed twice).

The slope of the paving must be less than 3%. For steeper slopes, jointing must be carried out using a joint injector with **Dolit FQ**.

Before the slurry is applied, the tile tiling must be treated with **Dolit Protective Varnish**. The repulsion behaviour of the protective coating as well as the joint pattern and the appearance of the tiles after jointing must be tested on a test surface before.

DELIVERY FORM / BEST BEFORE DATE

Component	Item no.	Quantity	Package	Months
Dolit-FQS-Solution	5233023001	25 kg	Hobbock	24
Dolit-Filler FQS	5233040002	20 kg	Bag	24

- All components must be stored and transported in a dry place.
- The minimum shelf life applies to a storage temperature of 20 °C. Higher temperatures shorten, lower temperatures extend the minimum shelf life.

Safety notice

- For handling, storage and transport, observe the relevant safety data sheets!

GISCODE

Product	GISCODE
Dolit FQS	SB-F10

MIXING RATIO / CONSUMPTION

MORTAR TO BE APPLIED BY SLURRY

DOLIT FQS MORTAR MASS

Component	kg/litre	Part by weight	kg / mix	Litres / batch
Dolit-FQS-Solution	0.602	100	5.700	5.000
Dolit-Filler FQS	0.898	150	8.500	9.500
Total	1.500	250	14.200	

Volume per batch	≈ 9.5 l Mortar mass
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MIXING / APPLICATION

Processing may only be started when the application requirements are met and can be maintained during the entire processing and curing.

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WORKING EQUIPMENT

Mortar mixer	Measuring cup	Drilling machine
Trowel	Scale	Anchor stirrer
Joint board (rubber chip)	Mixing vessel	

MIXING SEQUENCE

- At high ambient temperatures, mix smaller quantities of mortar to avoid a strong exothermic reaction of the mixture.
- Stir the solution well with an anchor stirrer (300 - 500 rpm) before use or partial withdrawal. Move the stirrer past the vessel wall and bottom.
- Solids are measured or weighed out individually, added to the solution in portions and mixed in carefully until a lump-free mixture is obtained.
- Smaller quantities can be mixed by hand.
- Do not use the mortar after the working time has expired.

APPLICATION

- The mortar is drawn over the tile surface diagonally to the course of the joint with the rubber scraper.
- The joints must be filled to the brim.
- As little mortar as possible should remain on the tile surface.
- From 20 mm joint depth, apply two joint compound. Wait between the individual slurry processes until the surface has hardened so that it can be walked on again.
- In stubborn cases, the **Dolit Protective Varnish** can be slightly heated.
- For larger areas and necessary connections, stop slurry application 2 - 3 tile rows before the protective varnish end. When connecting, the protective varnish is then rolled up over the remaining protective varnish strip.
- Expansion joint flanks must be prepared either by a cut or by a suitable expansion material.

POT LIFE

- At 20 °C the pot life is approx. 30 - 50 min.
- The pot life depends on the temperature.
- Higher temperatures shorten it, lower temperatures prolong it.

WAIT- / CURING TIME

- Waiting time until walkability (at 20 °C) at least 5 hours.
- Curing time until complete chemical and mechanical resistance (at 20 °C) at least 5 days.

CLEANING

Tools that are soiled with uncured materials can be cleaned with Dolit-Universal-Cleaner. Clean only in well ventilated areas and observe safety measures.

TESTING THE ELECTROSTATIC DISCHARGE CAPACITY

The measurement of the earth leakage resistance R_E is carried out with a commercially available resistance measuring device up to 10^8 Ohm with 100 volts DC as measuring voltage. A circular electrode with a diameter of 50 mm is used as the measuring electrode. As a contact mediator, a 50 mm diameter flow paper slightly moistened with tap water is placed on the surface of the tile. During the measurement, a force of approx. 10 N is applied to the base.

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The test takes place at the construction site and is carried out at the earliest 8 days after installation. In the case of non-electrically conductive ceramic tiles, measurements are taken in the area of the joint. Tile flooring needs to be cleaned before the test. There must be no insulating layers.

For non-conductive tiles, the panel size must not exceed the following dimensions to ensure conductivity across the joint material:

- For rectangular tiles 115 x 240 mm
- For square panels: 150 mm x 150 mm

SAFETY / DISPOSAL

- Ensure sufficient ventilation, especially when working in closed rooms, pits or containers.
- Observe fire and smoking ban.
- Observe safety data sheets, hazard statements and safety advice on the containers.
- Wear prescribed personal protective equipment. Avoid skin contact with the materials.
- Clean and care for hands with skin protection soap and ointment. Do not use solvents.
- Wear a dust mask during grinding work, e.g. repairs.
- Follow operating instructions according to §14 GefahrstoffV and Technical Rules for Hazardous Substances TRGS 507.
- Comply with the accident prevention regulations of the employers' liability insurance associations.
- Avoid direct contact of the materials with the flame, especially when welding, watch out for welding beads.
- Preferably consume residual quantities.
- Do not pour residues down the sink or into the dustbin.
- Collect residues for disposal separately in durable, sealable and labelled containers.

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This issue replaces all previous versions.