

EUFIX S

Special shrinkage compensated single component adhesive mortar with fast start of setting for bonding and jointing of basalt tiles and special low friction tiles

USE

Eufix S is a mortar which can be used for bonding and jointing various ceramic tiles including cast basalt tiles and low friction tiles (LFT) to concrete constructions (floor surfaces, walls, ovens, chutes etc.). The Eufix S can be also used in permanently damp places. This material can be also used for local repairs of concrete construction.

Eufix S is fully prepared mixture of aggregates, inorganic filling agents, portland cement, and special additives. By mixing with water in a specified ratio, you will obtain a special adhesive mortar. The mortar can be applied by masonry work. The material is then physically and chemically hardened.

PROPERTIES

- Excellent adhesion to cast basalt tiles, low friction tiles, concrete and steel.
- Fast strength development.
- Excellent frost-resistance.
- Excellently waterproof.
- Excellent resistance to chemicals – salts.
- Excellent resistance to abrasion.
- Excellent application in masonry way.

BASIC TECHNICAL DATA

Compressive strength after	3 hours	> 7 MPa
	1 day	> 20 MPa
	7 days	> 40 MPa
	28 days	> 55 MPa
Tensile strength after	3 hours	> 2 MPa
	1 day	> 5 MPa
	7 days	> 6 MPa
	28 days	> 10 MPa
Adhesion to concrete		> 2,0 MPa
Adhesion to basalt tiles (incl. LFT)		> 1,5 MPa
Modulus of elasticity		> 27 GPa
Coefficient of thermal expansion		$11 \times 10^{-6} \text{K}^{-1}$
Workability time		40-50 min
Frost-resistance		> 50 cycles
Waterproof (at 10mm)		> 3 Bar
Resistance to defrosting chemicals (ČSN 731326, method C)	Waste	< 100 g/m ²
		125 cycles

INSTRUCTIONS AND DATA FOR USE

Substrate preparation

Pay main attention to preparation of the substrate. Remove all the concrete which is disturbed in any way, or which is contaminated by oil or any other pollutant. New concrete surfaces must be well matured. The last step in preparation of substrate is washing of the surface by pressurised water, this step will remove all loose particles such as dust or dirt. The surface of concrete must be

soaked with water before application, but water can't stay on the surface (remove excess water from the surface).

Preparation of adhesive mortar

Adhesive mortar Eufix S is prepared by thorough mixing of the relevant quantity of the dry powder and water. **Recommended mixing ratio is 2,9 – 3,2 l of water for 25 kg of dry mixture.** Mix the mortar using a powerful spiral mixer (recommended power 1200-1500W). First mix 2/3 of the dry ingredients with the full volume of mixing water (always add the powder to the water). Stir for 1 min. and then add the remaining dry component while stirring and continue mixing for 2-3 minutes. Mixing of the mixture must be thorough. The prepared mixture must be completely homogeneous. The mortar consistency for application should be as such, that it does not stick to the trowel, but it should not be of crumbling consistency. This means consistency of around 140-150 mm (according to ČSN 72 2441 / EN 1015-3). **The mixing ratio of dry powder and water is always stated on the label of the packaging.**

Workability time

The specific time for workability depends on the ambient temperature and the temperature of the construction. At temperature of 20 °C, the period of workability is approximately 40-50 minutes. It is not possible to carry out repairs when the temperature of the air or the construction drops below +5 °C or when it rise above +30 °C.

Application

Repair of screeding concrete

Eufix S can be used for repair of concrete in thickness from 5 mm to 40 mm. The mortar must be applied to avoid capture of air under mortar. The mortar must be thoroughly incorporated into the screeding concrete. It is very important because the final adhesion of repair to screeding concrete depends on that. For required thickness of layer you can use suitable technique setting-on by trowel or forcing-on by finishing trowel. The final surface finish make by steel's or polystyrene's finishing trowel.

Bonding and jointing of tiles

The mortar must be applied so as to avoid capture of air under mortar and the mortar must be thoroughly incorporated into the screeding concrete. Mortar put on the surface by trowel. The thickness layer of mortar for bonding must be between 5 to 30mm. Cast basalt tiles must be placed immediately on to the fresh mortar bed. For final setting of tiles you can use rubber hammer. The joints between tiles should be at the between 5 to 7 mm. Jointing of cast basalt tiles can be done after wilting mortar bed. Jointing is done by same material as for bonding (Eufix S). For better working is good to mix mortar for jointing with water on the upper limit (from recommended level). For application of jointing mortar is good to use rubber squeegee. The joint must be completely filled. After initial wilting of jointing mortar clean cast basalt tiles by damp sponge.

Curing

It is recommended to protect joints of tiles against direct sunlight, warm wind it's necessary to prevent quick evaporation of water. It's fully enough to soak the joint or tile and cover it by foil (so water can't evaporate).

Limitations

The mortar Eufix S may not be used when the temperature of the air or the substrate drops below +5 °C and keeps on falling. Repairs and the laid tiles, at the ambient temperature of 15 °C, can be subjected to flowing water no sooner than after 2 hours.

COVERAGE

Eufix S 23-24 kg/m²/cm of thickness
include jointing

PACKAGING

Eufix S 5 kg plastic bucket
25 kg bag (1,05 t pallets)

STORAGE AND TRANSPORT

It is necessary to store the material in a dry and ventilated place. These products should be transported by covered means of transport.

CERTIFICATION

Mortar is certified according to EN 12004: ZA1: 2003 as an improved cement mortar type C2T and the product has the CE mark of conformity. Certificate Number: 1020-CPD-010021385.

While the mortar is certified according to EN 1504-3 as PCC mortar with static functions, class R3 C2T and the product has the CE mark of conformity. Certificate number: 1020-CPR-0100010038527 with the following parameters:


Compressive strength	≥ 25 MPa
Chloride ion content:	≤ 0.05%
Adhesive bond:	≥ 1,5 MPa
Carbonation resistance:	≤ dk - suits
Modulus of elasticity:	≥ 15 GPa
Restrained shrinkage expansion:	≥ 1,5 MPa
Reaction to fire:	Class A1
Hazardous substances in accordance with 5.4	

HEALTH AND SAFETY PRECAUTIONS

For further information, please see the Safety Sheet

Adhesive mortar Eufix S is non-flammable

Production is subject to quality management system in compliance with ISO 9001:2009 and 14001:2005.

 1020
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2007 1020 - CPD - 010021385
EN 12004 - ZA1:2003 Eufix S - cementitious adhesive for tiles for tiling internally and external flooring - C2T
Initial Tensile adhesion strength > 1,0 MPa Tensile adhesion strength after heat ageing > 1,0 MPa Tensile adhesion strength after water contact > 1,0 MPa Tensile adhesion strength after freeze-thaw cycles > 1,0 MPa Open time: tensile adhesion strength > 0,5 MPa; > 20 min Slip < 0,5 mm

Important note

In case of disagreement between data in the technical documentation and data on the packaging, the determining data is located on the packaging. Products of the company EUTIT s.r.o. are subject to warranty on material and production, and its sale is subject to Conditions for the Supply of Goods and Services. Company EUTIT s.r.o. endeavours to ensure that any advice, recommendation, specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation or information given by it. New issue of technical specifications makes the old issue redundant.