

INNO-FIX

FOX FLEXMORTAR® FX116

Highly Flexible Tile Adhesive for Ceramic, Granite and Marble

Description

FOX FLEXMORTAR® FX116 is a high-performance, cementitious and polymer-modified tile adhesive with reduced slip, extended open time and very high flexibility (super flexible). It is suitable for all climatic conditions and can be applied on both interior and exterior surfaces, in horizontal and vertical applications. It provides high stability, durability and a long service life.

The product complies with the requirements of EN 12004-1:2017 C2TES2.

C2 :Cement-based, improved additional properties, high-performance adhesive

T : Reduced slip

E : Extended open time

S2 : Highly flexible

Fields of Application

- For interior and exterior applications, on both vertical and horizontal surfaces.
- Suitable for all types of concrete substrates, cement-based screeds and plastered surfaces.
- For bonding ceramic tiles, porcelain tiles, natural stone and similar materials on waterproofing layers in wet areas such as bathrooms, balconies and kitchens.,
- Used for tile-on-tile applications in renovation and repair works.
- Suitable for bonding applications in swimming pools, Turkish baths, water tanks, bathrooms, industrial floors and cold storage rooms.
- Recommended for areas exposed to heavy pedestrian and load traffic.

Advantages

- Provides extended working time, saving both time and labor.
- Non-slip in vertical applications and offers high adhesion strength.
- Easy and convenient to apply.
- Highly flexible and resistant to vibrations.
- Resistant to freeze–thaw cycles.
- Does not shrink.
- Thanks to its high flexibility (S2 class), it resists surface stresses caused by sudden temperature changes.

Technical Properties

Composition		Special cement, mineral fillers, polymer additives
Renk		Grey, White
Mortar Density		1,70±0,05 gr/cm ³
Adhesion Strength		
Initial Tensile Adhesion Strength	EN 12004-2:2017	≥1.0 N/mm ²
Adhesion Strength after Water Immersion	EN 12004-2:2017	≥1.0 N/mm ²
Adhesion Strength after Heat Aging	EN 12004-2:2017	≥1.0 N/mm ²
Adhesion Strength after Freeze–Thaw Cycles	EN 12004-2:2017	≥1.0 N/mm ²
Application Thickness		3-10 mm
Application Temperature		+5°C / +30°C
Service Temperature		-20°C / +80°C
Maturing Time		3 – 5 minutes
Pot Life		~5 hours
Open Time		30 minutes
Deformability	EN 12004-2:2017	≥5.0 mm S2
Slip (mm)	EN 12004-2:2017	≤0.5 mm
Walkability Time		After 24 hours
Grouting Time		After 24 hours
Fire Reaction Class	EN 13501-1	A2

The above values are given for a temperature of +23°C and 50% relative humidity. Higher temperatures shorten the working time, while lower temperatures extend it.



Application Procedure

Surface Preparation

Cement-Based Substrates

The surfaces to be treated must be sound, level, and free from dust, oil, grease and all kinds of contaminants. Areas requiring repair must be repaired at least 1 day in advance using **INNO-CRETE** series repair mortars. If the substrate temperature is above +25°C, the surface should be lightly moistened before application.

Other Substrates

Before application on highly absorbent surfaces such as aerated concrete, gypsum plaster, particle board, gypsum board and lime-based plaster, the surface must be primed with **FOX PRIMERA® FL220** diluted with water at a ratio of 1:1. Bonding application can be carried out at least 8 hours after primer application.

Wood-Based Panel Substrates (OSB and Particle Boards)

Wood-based panels must have a maximum moisture content of 10%. Panels applied on floors must be at least 25 mm thick, and those applied on walls must be at least 19 mm thick. The panels must be fixed to the substrate with screws at 30 cm intervals. Edge joints must be at least 8 mm wide. Expansion joints must be left at panel junctions and filled with **FOX PURSEAL PS600** (Polyurethane Sealant). For applications in dry environments, wood-based panels must be primed with **FOX UNIPRIMER FL555** or **FOX STUCPRIMER FL888**.

Mixing

Pour the specified amount of clean water into a clean mixing container as indicated on the packaging. Slowly add **FOX FLEXMORTAR® FX116** into the water while mixing with a low-speed mixer (400–600 rpm) until a homogeneous mixture is obtained (approximately 3–4 minutes). Ensure that the mixture is free of lumps. After allowing the mixture to rest for about 3 minutes (maturing time), remix for 1 minute to make it ready for application.

Mixing Ratios

For 25 kg/1 bag **FOX FLEXMORTAR® FX116** Grey, approximately 7.75±0.25 liters of water should be used.

For 1 kg **FOX FLEXMORTAR® FX116** Grey, approximately 310±10 ml of water should be used.

For 25 kg/1 bag **FOX FLEXMORTAR® FX116** White, approximately 8.00±0.25 liters of water should be used.

For 1 kg **FOX FLEXMORTAR® FX116** White, approximately 320±10 ml of water should be used.

Application

Apply a 1 mm thick layer of **FOX FLEXMORTAR® FX116** onto the substrate using the flat side of the trowel. Within the open time of 30 minutes, apply the adhesive to an area that can be covered within this period and comb it in one direction with the notched side of the trowel to obtain a uniform thickness. For bonding tiles or granite with different thicknesses, and to compensate for surface irregularities, it is recommended to apply a 1 mm thick layer of **FOX FLEXMORTAR® FX116** to the back of each tile or granite (back-buttering method). When placing the tiles or granite onto the surface, press and move them slightly to ensure full contact with the adhesive mortar. Application should be completed by leaving joint gaps according to the recommended joint width suitable for the size of the tiles or granite. For filling the joints, **INNO-FIX** series grouts should be used. Grouting can be carried out after approximately 24 hours.

Workability Test

To check the applicability of tiles on the adhesive, the open time should be considered. Press a finger onto the adhesive applied on the surface. If the adhesive transfers to the finger, tile installation can continue. If the adhesive does not transfer to the finger, the application time of the adhesive has expired. In this case, the adhesive must be removed from the surface and fresh adhesive must be applied.

Consumption

Depending on the notch size of the trowel used, consumption varies between 4–6 kg/m².

Packaging

25 kg polyethylene-reinforced kraft bags

Watch Points

- During the application of **FOX FLEXMORTAR® FX116**, if the ambient and substrate temperature is below +5°C or above +30°C, suitable temperature conditions must be awaited. Application should not be carried out in extremely hot, rainy or very windy weather conditions.
- For exterior applications, the applied surface must be protected from sun, rain, wind and frost for the first 24 hours.



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- The working and reaction times of tile adhesives are affected by air temperature, humidity and substrate temperature.
- High temperatures accelerate hydration and therefore shorten the working time. Low temperatures slow down hydration and extend the working time. In order for the product to complete its curing process, the ambient and substrate temperatures must not fall below the minimum permitted application temperature.

Cleaning of Tools

Tools and equipment used must be cleaned immediately with water after application. Once **FOX FLEXMORTAR® FX116** has hardened, it can only be removed mechanically from surfaces.

Shelf Life and Storage

The product must be stored in its unopened original packaging, in a dry and cool environment (+5°C to +30°C), protected from direct sunlight and frost. When stored in accordance with the specified storage conditions, the shelf life is 12 months from the date of production. Opened packages must be tightly sealed and used within 1 week. For short-term storage, a maximum of 2 pallets may be stacked on top of each other, and shipment must be carried out according to the first-in, first-out principle. For long-term storage, pallets must not be stacked.

Safety precautions

It is dangerous to approach storage and application areas with fire. Storage and application areas should be ventilated. During the application, work clothes, protective gloves, glasses and masks in accordance with the occupational and worker health rules should be used. During storage and application, it should not be contacted with the skin and eyes, in case of contact, it should be washed with plenty of soap and water. If swallowed, a doctor should be consulted immediately. Food and beverage materials should not be brought into the application areas. It should be stored out of the reach of children.

For detailed information, the Material Technical Data Sheet should be consulted.

Disclaimers

The data contained in this technical document is based on our scientific and practical knowledge. Fox Bau Yapı Kimyasalları A.Ş. is only responsible for the quality of the product. Our company cannot be held responsible for the consequences that may occur due to misuse and/or other than the written suggestions about where and how the product will be used. For detailed information, the safety data sheet and technical data sheet should be consulted or our company officials should be contacted.

