



ARDEX X 77 S

MICROTEC Flexible adhesive, fast

- Can be walked on after approx. 90 minutes
- Safety through fibre reinforcement
- High yield
- No efflorescence thanks to special additives
- Waterproof
- Frost resistant
- Easy processing



Area of application

Indoor and outdoor. Walls and floors.

Creating a flexible adhesive bed. Applying and laying

- Tiles made of earthenware, stoneware and porcelain stoneware
- Glass and porcelain mosaics
- Concrete slabs
- moisture-resistant natural stone slabs.

For fixing

- suitable building boards, e.g. gypsum boards
- Insulation boards made of rigid foam and mineral fibres
- Tile elements (rigid foam insulation boards with mortar coating on both sides).

For fixing and laying of tiles in swimming pools. For fixing ceramic claddings to facades. For fixing and laying tiles on concrete and masonry substrates that are still shrinking (at least 3 months old).

Plating on heated screeds.

Settings

Safety through fibre reinforcement

- Shear stresses are compensated
- Adhesive strength is improved
- Deformation forces are reduced

ARDEX X 77 S + ARDEX E 90 synthetic resin enhancer
= Special adhesive with high deformability (S2 according to EN 12002) and water-repellent properties

Meets classification F (adhesive tensile strength $\geq 0.5 \text{ N/mm}^2$) after just 6 hours.

Art

Powder with cements, fillers, special additives, MICROTEC fibres and flexible plastics.

When mixed with water, it forms a smooth, paste-like adhesive mortar with high stability. The working time is approx. 30 minutes. The mortar hardens through hydration and drying.

Preparation of the surface

The dry or damp substrate must be solid, load-bearing, rigid, free of dust, contaminants or release agents.

Gypsum substrates and absorbent or ground calcium sulphate screeds must be dry and primed with ARDEX P 51 Adhesive and Priming Dispersion, diluted 1 : 3 with water.

On dense and smooth substrates indoors, such as old tiles, Terrazzo, natural stone, mastic asphalt, chipboard, apply ARDEX P 4 READY Multifunctional Primer as a bonding agent



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or apply ARDEX X 77 S MICROTEC Flex Adhesive thinly and quickly on metal substrates, use ARDEX P 82 synthetic resin primer.

In permanently wet areas and outdoors, ARDEX waterproofing compounds must be applied to tile coverings as a bonding agent and waterproofing.

The tiles can be laid with ARDEX X 77 S after the primer, bonding agent or pre-coat has dried.

Processing

Pour clear water into a clean mixing container and add ARDEX X 77 S powder until a lump-free, smooth, stable mortar is obtained. To improve the smoothness, stir the mortar again before applying it to the substrate.

Approximately 8.5 litres of water are required to mix 25 kg of ARDEX X 77 S powder.

The mortar consistency can be varied depending on the type, size and weight of the covering to be laid.

To produce a special adhesive with high deformability and water-repellent properties, mix ARDEX X 77 S powder with ARDEX E 90 synthetic resin enhancer diluted with water in a ratio of 1 : 2.

The mixing ratio is approx.

- 25 kg ARDEX X 77 S powder
- 3.0 kg ARDEX E 90 synthetic resin enhancer
- 6.0 l water

The ARDEX X 77 S mortar is applied to the substrate and combed with a notched trowel to ensure that the tiles or slabs are bonded over the entire surface. The substrate, type, size and back of the tiles determine the choice of notched trowel. For highly stressed surfaces, it is recommended to use the floating-buttering method to achieve the most complete embedding possible.

Rough and uneven substrates can be quickly levelled with ARDEX X 77 S MICROTEC Flexible adhesive. Once the smoothing layer has hardened, the tiles can be laid.

The laying areas should only be large enough to allow tiles and insulation materials to be easily laid into the pasty, moist mortar bed within the setting time of approx. 20 minutes.

Tiles can be adjusted for up to 15 minutes after laying.

When bonding insulation boards, apply the mortar in strips or blobs to the back of the boards. If the boards to be bonded do not have open pores, the surface must be roughened mechanically beforehand.

When laying glass, porcelain and ceramic mosaics, the mortar should be applied with a 3 mm or 4 mm notched trowel, depending on the substrate condition.

The mosaic must be laid into the fresh adhesive and pressed down so that sufficient wetting is achieved. Scrape out joints if necessary. ARDEX joint compounds are suitable for grouting, depending on the area of application and use. ARDEX WA must be used in wet areas. In swimming pools and other high load areas, it is recommended to use ARDEX WA for laying and grouting. In case of doubt, carry out test bonding.

ARDEX X 77 S MICROTEC Flexible adhesive, process quickly at temperatures above +5°C. Higher temperatures shorten, lower temperatures extend the processing and load times.

Please note

When laying tiles on building boards, ensure that they are fixed to the under-structure in a way that is resistant to twisting and dimensionally stable.

ARDEX sealing compounds should be used for waterproofing measures prior to installation.

The products of the ARDEX natural stone system are suitable for the discolouration-free laying of marble and other natural stones in interior areas. ARDEX WA epoxy adhesive and grout should be used in spas and thermal baths.

When laying tiles on shrinking substrates, the field sizes must be limited by arranging expansion joints.

Note

The information in our safety data sheets must be observed.

For commercial use only!

Zusatzinformation

Handle with care during processing: avoid dust formation and release into the environment.

Dispose of the container and its contents in a sealed state in accordance with applicable local/regional/national/international regulations.

Technical data according to ARDEX quality standard

Mixing ratio approx.	Component A 8.5 l Water 1 Part water	Component B 25 kg powder 2.75 RT powder	
Material requirement approx.	Material requirements 1.30 kg/m² 2.00 kg/m² 2.50 kg/m²	Toothing (mm) 3 x 3 x 3 6 x 6 x 6 8 x 8 x 8	Condition On smooth substrates On smooth substrates On smooth substrates
Bulk density approx.	1,10 kg/l		
Fresh weight approx.	1,60 kg/l		
Application properties			
Processing time approx.	30 Minute(s)		



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Insertion time (EN 1346) approx.	30 Minutes
Correction time approx.	15 Minutes
Can be walked on after approx.	90 Minute(s), after which grouting on the floor is possible
Grouting on the Wall after approx.	60 Minute(s)
Application Ambient conditions	+20°C

Mechanical properties

Adhesive tensile strength approx.	Ambient condition	Bond strength	Condition	Time
	Dry, wet	1.0 - 2.0 N/mm ²	For stoneware tiles	After 28 days
	Warm	1.0 - 1.5 N/mm ²	For stoneware tiles	After 28 days
	Frost-thaw cycle	1.0 - 1.5 N/mm ²	For stoneware tiles	After 28 days

Product details

Suitable for underfloor heating	Yes
Tested according to DIN EN 12004	C2 FTE S1
Labelling according to GHS/CLP	See relevant safety data sheet
Labelling according to ADR	See relevant safety data sheet
EMICODE	EC 1 = very low emissions
GISCODE	ZP1 = cementitious product, low chromate content
Packaging	Sacks containing 25 kg net
Storage	Can be stored in dry rooms for approx. 6 months in the original sealed container.



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54062	
EN 12004:2007+A1:2012	
54062 ARDEX X 77 S, EN 12004:C2FTE-S1 Improved fast setting deformable cementitious adhesive with reduced slip and extended open time for internal and external tiling	
Reaction to fire:	E
Bond strength	
Initial tensile adhesion strength:	$\geq 1.0 \text{ N/mm}^2$
Early tensile adhesion strength after 6 hours:	$\geq 0.5 \text{ N/mm}^2$
Durability of bond strength	
Tensile adhesion strength after heat ageing:	$\geq 1.0 \text{ N/mm}^2$
Tensile adhesion strength after water immersion:	$\geq 1.0 \text{ N/mm}^2$
Tensile adhesion strength after freeze-thaw cycles:	$\geq 1.0 \text{ N/mm}^2$
Release of dangerous substances:	NPD