



ARDEX X 77

MICROTEC Flexible adhesive

- Safety through fibre reinforcement
- Waterproof
- Frost resistant
- Flexible
- High yield
- Easy processing
- No efflorescence thanks to special additives
- Meets the C2 requirements of DIN EN 12004



Area of application

Indoor and outdoor. Walls and floors.

For creating a flexible adhesive bed.

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

For cladding on heated screeds.

Settings

Safety through fibre reinforcement

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

ARDEX X 77 + ARDEX E 90 Synthetic resin enhancer

= Special adhesive with high deformability (S2 according to EN 12002) and water-repellent properties

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. 3 hours. The mortar hardens through hydration and drying.

Preparation of the surface

The dry or damp substrate must be solid, load-bearing, free from dust, impurities 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.

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Manufacturer with certified
QM/UM system according to
EN ISO 9001/14001



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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 or apply a thin layer of ARDEX X 77 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 are laid with ARDEX X 77 MICROTEC Flexible adhesive after the primer, bonding agent or pre-coat has dried.

Processing

Pour clear water into a clean mixing container and add enough ARDEX X 77 powder to produce a lump-free, smooth, stable mortar.

To improve the smoothness, stir the mortar again before applying it to the substrate.

Approximately 11 litres of water are required to mix 25 kg of ARDEX X 77 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 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 powder
- 4.5 kg ARDEX E 90
- 9.0 l water

The ARDEX X 77 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 areas, it is recommended to use the buttering-floating method to achieve the best possible embedment.

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

The laying areas should only be large enough to allow the tiles and insulation materials to be easily laid into the paste-like, moist mortar bed within the setting time.

Tiles can be adjusted for up to 30 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 and porcelain mosaics with paper backing, apply ARDEX X 77 mortar generously so that when the mosaic is pressed down, the joints are laid in a rising pattern. Any necessary joint filling in this case should also be carried out with ARDEX X 77.

In case of doubt, carry out test bonding.

ARDEX X 77 MICROTEC Flexible adhesive should be used 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 must be used for waterproofing measures prior to installation.

The products of the ARDEX natural stone system are suitable for the discolouration-free installation of marble and other natural stones in interior areas.

ARDEX WA epoxy adhesives and grouts 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 users only!

Additional information

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

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

Technical data according to ARDEX quality standard

Mixing ratio approx.	Component A 2.2 l water 11 l water 1 Part water	Component B 5 kg powder 25 kg powder 2.25 RT powder	
Material requirement approx.	Material requirements 1.00 kg/m² 1.60 kg/m² 2.20 kg/m² 2.60 kg/m² 4.10 kg/m²	Toothing (mm) 3 x 3 x 3 6 x 6 x 6 8 x 8 x 8 10 x 10 x 10 ARDEX Microtec notching	Condition On smooth substrates On smooth substrates On smooth substrates On smooth substrates On smooth substrates
Bulk density approx.	1,00 kg/l		
Fresh weight approx.	1,50 kg/l		



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Application properties

Processing time approx.	3 Hour(s)
Insertion time (EN 1346) approx.	60 Minutes
Correction time approx.	15 - 30 Minutes
Can be walked on after approx.	24 Hours, grouting possible thereafter
Grouting on the Wall after approx.	8 Hour(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 TE S1
Labelling according to GHS/CLP	See relevant safety data sheet
Labelling according to ADR	See relevant safety data sheet
EMICODE	EC 1 PLUS = very low emissions PLUS
GISCODE	ZP1 = cementitious product, low chromate content
Packaging	Sacks containing 25 kg net; Buckets containing 5 kg net
Storage	Can be stored in dry rooms for approx. 12 months in the original sealed container.



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EN 12004:2007+A1:2012

ARDEX X 77
Improved deformable cementitious adhesive with reduced
slip and extended open time for internal and external
tiling
EN 12004:C2TE-S1

Fire class:	A2-s1, d0
Initial tensile adhesion strength:	$\geq 1.0 \text{ N/mm}^2$
Tensile adhesion strength after water immersion:	$\geq 1.0 \text{ N/mm}^2$
Tensile adhesion strength after heat ageing:	$\geq 1.0 \text{ N/mm}^2$
Tensile adhesion strength after freeze-thaw cycles:	$\geq 1.0 \text{ N/mm}^2$
Release of dangerous substances:	See material safety data sheet