



ARDEX X 90

MICROTEC3 Flexible adhesive

- Meets ARDEX MICROTEC3 requirements
- For adhesive bed thicknesses up to 15 mm
- Full embedding without fluidisation behaviour
- Long working time of 1 hour
- Walkable after 3 hours
- Very high initial adhesion
- Easy processing



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.

Laying tiles and slabs

- on balconies and terraces
- in swimming pools
- in heavy-duty industrial and commercial areas.

For fixing ceramic cladding to facades.

For fixing and laying tiles on concrete and masonry substrates that are still shrinking (at least 3 months old).

For cladding on heated screeds.

Efflorescence-free laying of stoneware and porcelain stoneware tiles, concrete and natural stone slabs in indoor and outdoor areas. Particularly suitable for laying large-format

tiles in outdoor and permanently wet areas, e.g. walk-in showers.

Settings

Meets ARDEX MICROTEC3 requirements:

- highest frost-thaw resistance
- fast setting even at cool temperatures
- Resistant to driving rain after approx. 2 hours
- Fibre reinforcement

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. 60 minutes. 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 sanded anhydrite screeds must be dry and primed with ARDEX P 51 Adhesive and Priming Dispersion or ARDEX P 52 Primer Concentrate diluted 1:3 with water.

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

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

14.10.2025



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bonding agent or thinly coated with ARDEX X 90 on metal substrates, use ARDEX P 82 synthetic resin primer.

In permanently wet areas and outdoors, ARDEX sealing masses must be applied to tile coverings as a bonding agent and sealant.

The tiles are laid with ARDEX X 90 MICROTEC3 Flexible adhesive after the primer, bonding agent or pre-coat has dried.

Mixing

Pour clear water into a clean mixing container and add enough ARDEX X 90 powder to produce a lump-free, smooth, paste-like mortar. 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 90 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 90 powder with ARDEX E 90 synthetic resin enhancer diluted with water in a ratio of 1 : 2.

The mixing ratio is approximately:

25 kg ARDEX X 90 powder

3.3 kg ARDEX E 90

6.6 l water

Processing

ARDEX X 90 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. Rough and uneven substrates can be levelled with ARDEX X 90. Once the smoothing layer has hardened, the tiles can be laid.

The laying areas must only be large enough to allow tiles and slabs to be easily laid into the paste-like, moist mortar bed within the 30-minute working time.

Tiles can be adjusted for up to 20 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 laid 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. The mosaic must be laid into the fresh adhesive and pressed down so that sufficient coverage is achieved. Scrape out joints if necessary.

Cementitious ARDEX grouts are suitable for grouting, depending on the area of application and use. In wet areas, ARDEX RG 12 1-6 epoxy grout should be used.

In case of doubt, carry out test bonding.

ARDEX X 90 MICROTEC3 Flexible adhesive must be processed 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 substructure 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 installation 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!

Additional information

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 2.25 RT powder	
Material requirement approx.	Material requirements 1.10 kg/m ² 2.10 kg/m ² 2.60 kg/m ² 3.20 kg/m ²	Toothing (mm) 3 x 3 x 3 6 x 6 x 6 8 x 8 x 8 10 x 10 x 10	Condition On smooth substrates On smooth substrates On smooth substrates On smooth substrates
Bulk density approx.	1,10 kg/l		
Fresh weight approx.	1,60 kg/l		



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Application properties

Processing time approx.	60 Minute(s)
Insertion time (EN 1346) approx.	30 Minutes
Correction time approx.	15 - 20 Minutes
Can be walked on after approx.	3 Hours, grouting possible thereafter
Grouting on the Wall after approx.	2 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 FTE 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
Storage	Can be stored in dry rooms for approx. 12 months in the original sealed container.

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24261

EN 12004:2007+A1:2012

24261 ARDEX X 90, EN 12004:C2FTE-S1

Verformbarer schnell erhärtender zementhaltiger Mörtel für erhöhte Anforderungen mit verringertem Abrutschen und verlängerter offener Zeit für Fliesen- und Plattenarbeiten im Innen- und Außenbereich

Brandverhalten:	E
Verbundfestigkeit	
Haftzugfestigkeit nach Trockenlagerung:	$\geq 1,0 \text{ N/mm}^2$
Früh-Haftzugfestigkeit nach 6 Stunden:	$\geq 0,5 \text{ N/mm}^2$
Dauerhaftigkeit	
Haftzugfestigkeit nach Warmlagerung:	$\geq 1,0 \text{ N/mm}^2$
Haftzugfestigkeit nach Wasserlagerung:	$\geq 1,0 \text{ N/mm}^2$
Haftzugfestigkeit nach Frost-Tauwechsellagerung:	$\geq 1,0 \text{ N/mm}^2$
Freisetzung gefährlicher Stoffe:	NPD