ARDEX X 78

MICROTEC Flex adhesive

- Large format adhesives for walls and floors
- High yield
- Full embedding without fluidisation behaviour
- Thin-bed and medium-bed mortar
- Easy processing
- For producing an S2 adhesive in combination with ARDEX E 90

geprüft nach EN 12004/12002 C2 E S1

NACH ARDEX E(E) LANGE EINLEGEZEIT QUALITÄTSNORM

GEV-EMICODE EC 1 PLUS very low emission

Area of application
Indoor and outdoor. Walls and floors.

Creation of a flexible adhesive bed with a soft mortar consistency that allows for complete embedding using the floating method.

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 showers and swimming pools
- on heated screeds
- in heavy-duty industrial and commercial areas.

Laying tiles on concrete substrates that are still shrinking (at least 3 months old). For layer thicknesses up to max. 15 mm.

Settings
Classification according to EN 12004/12002:

- C2 = cementitious mortar with increased requirements
- E = extended open time
- S1 = workability of 2.5 – 5 mm
- S2 = deformability < 5 mm.

Art
Powder with special cements, fillers, special additives and flexible plastics. When mixed with water, it forms a highly yielding, smooth, paste-like, stable adhesive mortar that hardens through hydration.

Substrates
Concrete, masonry, aerated concrete, mortars of groups II, III and IV, gypsum boards and other building boards, cement screeds, calcium sulphate screeds, dry screeds, old tiles and slab coverings (sand down glazed and polished surfaces), heated screeds and other suitable substrates.

Preparation of the surface
The dry or damp substrate must be solid, load-bearing, rigid, free of 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.

On dense and smooth substrates indoors, such as old tiles, Terrazzo, natural stone, mastic asphalt and chipboard,

25.09.2025

ARDEX Baustoff GmbH
Hürmer Straße 40
A-3382 Loosdorf
AUSTRIA
+43 (0) 2754/7021-0
+43 (0) 2754/2490
office@ardex.at
www.ardex.at

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

ARDEX X 78

MICROTEC Flex adhesive

ARDEX P 4 READY Multifunctional Primer should be applied as a bonding agent, or ARDEX X 78, apply a thin coat. On metal substrates, use ARDEX P 82 synthetic resin primer.

Once dry, the surfaces can be reworked.

For high mechanical or thermal loads, we recommend using ARDEX EP 2000 Multifunctional Epoxy Resin, sanded with 0.3–0.9 mm fire-dried quartz sand.

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

The tiles are laid with ARDEX X 78 MICROTEC Flex 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 78 powder to produce a lump-free, smooth, soft plastic mortar. After a setting time of approx. 2 minutes, stir the mortar again vigorously.

Approximately 9 litres of water are required to mix 25 kg of ARDEX X 78 powder.

Processing

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 workability and water-repellent properties, mix ARDEX X 78 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 78
- 3.5 kg ARDEX E 90
- 7.0 kg water.

The ARDEX X 78 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 in smaller areas with ARDEX X 78 to a maximum of 20 mm.

On moisture-sensitive substrates, ARDEX P 4 READY Multifunctional Primer must be used as a primer. The tile format must then be max. 60 x 60 cm. For laying larger tile formats, we recommend the use of quick-drying systems such as ARDEX X 90 MICROTEC3 flex adhesive or ARDEX N 23 W NEW MICROTEC natural stone and tile adhesive, white.

The laying areas must 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.

Laid surfaces can be walked on and grouted the next day (walls after 8 hours).

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 still 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. 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 78 MICROTEC Flex 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 rigidly fixed to the substrate and cannot twist.

ARDEX sealing compounds must be used for waterproofing measures.

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**		**Component B**
	9 l Water		25 kg powder
	1 Part water		2.25 RT powder
Material requirement approx.	**Material requirements**	**Toothing (mm)**	**Condition**
	1.30 kg/m²	3 x 3 x 3	On smooth substrates
	2.10 kg/m²	6 x 6 x 6	On smooth substrates
	2.70 kg/m²	8 x 8 x 8	On smooth substrates
	3.20 kg/m²	10 x 10 x 10	On smooth substrates
	5.80 kg/m²	MICROTEC teeth 12 x 10 x 15 mm	On smooth substrates
Bulk density approx.	1,20 kg/l		

ARDEX X 78

MICROTEC Flex adhesive

Fresh weight approx.	1,60 kg/l

Application properties

Processing time approx.	4 Hour(s)
Insertion time (EN 1346) approx.	60 Minutes
Correction time approx.	30 Minutes
Can be walked on after approx.	24 Hours, grouting possible thereafter
Application Ambient conditions	+20°C

Mechanical properties

Adhesive tensile strength approx.

Ambient condition	Bond strength	Condition	Time
Dry, wet	1.0 - 2.0 N/mm²	For stoneware tiles	After 28 days
Warm	1.0 - 1.5 N/mm²	For stoneware tiles	After 28 days
Frost-thaw cycle	1.0 - 1.5 N/mm²	For stoneware tiles	After 28 days

Product details

Suitable for underfloor heating	Yes
Tested according to DIN EN 12004	C2 E 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.

ARDEX X 78

MICROTEC Flex adhesive

CE

0432
1783

ARDEX Baustoff GmbH
Hürmer Straße 40
A-3382 Loosdorf
Austria

06

54065

EN 12004:2007+A1:2012

54065 ARDEX X 78, EN 12004:C2E-S1
Improved deformable cementitious adhesive with extended open time for internal and external tiling

Reaction to fire:	A2-s1, d0
Bond strength	
Initial tensile adhesion strength:	≥ 1.0 N/mm²
Durability of bond strength	
Tensile adhesion strength after heat ageing:	≥ 1.0 N/mm²
Tensile adhesion strength after water immersion:	≥ 1.0 N/mm²
Tensile adhesion strength after freeze-thaw cycles:	≥ 1.0 N/mm²
Release of dangerous substances:	NPD