



# ARDEX X77

## Microtec Flexible adhesive

Cement-Basis

Meets C2 requirements according EN 12004

Bedding and setting ceramic tiles, including fully vitrified, porcelain, stoneware, concrete- and natural stone slabs

Internal and external



Additional safety through fibre reinforcements

- compensates shear tensions
- higher adhesion strength
- reduction of deforming forces

Flexible

Imperviousness to water

Frost-resistant

high yield

Easily workable

Enflorencence proof due to addition of special additives

ARDEX X 77

+ ARDEX E 90 synthetic resin improver

= Special adhesive with high deformability (S2 acc. EN 12002) and water repellent properties



ARDEX TAIWAN INC  
6F, NO.1, LANE 26, Jen-Ai Road,  
Yung Ho City, Taipei, Taiwan 234  
Tel:886-2-32337741  
Fax:886-2-32337641  
Email:inform@ardex.com.tw  
Website: www.ardex.com.tw

Headquarter

ARDEX GmbH  
Friedrich-Ebert-Straße 45  
D-58453 Witten  
Tel:(+49)2302/6 64-0  
Fax:(+49)2302/6 64-2 99  
Email:kundendienst@ardex.de  
Website : www.ardex.de

Asian Pacific HQ

ARDEX Australia Pty Ltd  
UNIT 7/20 POWDERS ROAD  
Seven Hills NSW 2147  
Tel:(02)9851 9199  
Fax:(02)9674 5621  
Email:techinfo@ardexaustralia.com  
Website: www.ardex.com

Asian North HQ

ARDEX (Shanghai) CO., Ltd  
3F, Building 3, No 505, South  
Zhongshan RD., Huangpu district,  
Shanghai, China 200010  
Tel: +86 21 6152 6722  
Fax: + 86 21 6152 6726  
Website: www.ardex.com

# ARDEX X77

## Microtec flexible adhesive

### Description:

Powder with special cements, easily dispersible resin powders and selected fillers, Microtec fibers and special additives.

When mixed with water the result is a supple, moldable mortar, with a high slump resistance.

The pot life is 3 hours. The mortar which hardens by means of hydration and drying.

### Areas of application:

Internal and external wall and floor.  
To produce a flexible adhesive bed.

Setting and bedding of

- tiles made of earthenware and stoneware and porcelain tiles.
- mosaic made of glass and porcelain.
- concrete stone slabs.
- non water sensitive natural stones.
- suitable building boards, e.g. plasterboard.
- insulating boards made of rigid foam, and mineral fibers.
- tile elements (rigid foam insulating with mortar laminated on both sides).
- Tiling in swimming pools.
- Installation of ceramic coverings on walls and facades.
- Installation on to green concrete and masonry brick (older than 3 month).
- Tiling on heated screeds.

### Packaging/ Shelf life:

20Kg

12 months when stored in the original unopened packaging, in a dry place at 25°C and 50% relative humidity.

### Substrate Preparation :

The substrate can be dry or moist, firm load-bearing and sound, free from dust and release agents.

Gypsum substrates and absorbent or ground anhydrite must be dry and primed with ARDEX P51 multiprimer, diluted 1 : 3 with water.

Metal, glass, coats of varnish, coatings and similar substrates have to be primed with ARDEX P82.

Existing tiles in the interior have to be primed with ARDEX P82 or ARDEX X77 has to be applied in a thin layer.

In permanent wet areas and in the exterior to tile over existing tiles ARDEX waterproofing products have to be applied.

The installation of ARDEX X77 can take place after drying of the waterproofing, primer or scratch coat.

### Application:

Clear water is put into a clean mixing container and whilst stirring vigorously as much ARDEX X77 is mixed in, to give a lump free mortar.

Prior to the installation of the mortar to the substrate it is recommended to mix again.

Approx. 8.4 liters of water are needed to mix 20 kg of ARDEX X77. The desired mortar consistency can be adjusted acc. to size, weight and type of the tiles to be installed.

**To receive a special adhesive with a high deformability and water repellent properties the ARDEX X77 powder has to be mixed in the ratio 1:2 with ARDEX E90.**

**The mixing ration is approx.**

**20 kg of ARDEX X77 powder**

**3.6 kg of ARDEX E90**

**7.2 kg of water**

Apply the mortar to the substrate and comb through vertically with a notched trowel. Substrate surface, type and size of the tiles determine the selection of the trowel. For high-load areas it is advisable to set according to the buttering/floating method in order to achieve a solid bedding.

Rough and uneven substrates can be smoothed using ARDEX X77. The installation can take place after drying of the smoothing layer.

The areas where the mortar has to be spread should only as big that the subsequent tiling work can be done while the mortar is still wet.

Tiles can be moved/adjusted for approx. 30 minutes.

When fixing soft board and insulating boards the mortar has to be applied to the back of the boards. If the boards to be set to not have open pores, the surfaces of these boards must be roughened mechanically beforehand.

When setting glass mosaic or porcelain mosaic with paper stuck to its surface, the ARDEX X77 mortar must be applied in such quantities that when the mosaic is pressed and fixed into the adhesive bed the mortar rises up through the joint. Any subsequent grouting must also be done in this case with ARDEX X77. If in doubt, carry out bonding tests.

ARDEX X77 must be worked at temperatures above +5°C.

Higher temperature shorten, lower temperature lengthen the time as regards working and load bearing.

### Pay attention to the following:

When setting the tiles onto building boards attention must be paid to the fact that these have been attached to the substructure in torsionally rigid and dimensionally stable manner.

With reference to the leaflet entitled "Advice for implementing waterproofing in conjunction with tiles and slabs covering for internal and external applications" ZDN (Central Association of the German Building Trade) ARDEX waterproofing compounds have to be used for waterproofing.

For non-discoloring setting of marble and other natural stones in the interior products of the ARDEX natural stone system are suitable.

ARDEX WA epoxy adhesive and joint mortar must be used in spas and thermal baths.

When setting tiles on shrinking substrates the size of the areas must be limited by placing settlement joints.

### Note:

Contains cement, Reacts alkaline – so protect skin and eyes, In case of contact wash thoroughly with water. In case of eye contact also consult a doctor.

Wear appropriate protection gear such as safety glasses.

Physiologically and ecologically save when in cured state.

Giscode ZP1 = product contains cement, low chromate content.

## Technical Data: according to ARDEX quality standards

<b>Mixing ratio:</b>	approx. 8.4 l Water : 20 kg powder is equivalent to approx. ca. 1 vol. of water : 2 vol. of powder
<b>Bulk density:</b>	ca. 1,0 kg/l
<b>Fresh mortar weight:</b>	ca. 1,5 kg/l
<b>Material requirement:</b>	on smooth substrate:  approx. 1,0 kg/m <sup>2</sup> powder with notch 3 x 3 x 3 mm  approx. 1,6 kg/m <sup>2</sup> powder with notch 6 x 6 x 6 mm  approx. 2,2 kg /m <sup>2</sup> powder with notch 8 x 8 x 8 mm
<b>Working time (20 °C):</b>	ca. 3 hours
<b>Open time: (EN 1346)</b>	ca. 60 minutes (with freshly mixed mortar)
<b>Adjusting time:</b>	15-30 minutes
<b>walkability: (20 °C):</b>	after approx. 1 day then grouting is possible
<b>Grouting onto walls (20 °C):</b>	after approx. 8 hours
<b>Tensile adhesion strength:</b>	for stoneware tiles after 28 days  dry, wet approx. 1,0 – 2,0 N/mm <sup>2</sup>  warm approx. 1,0 – 1,5 N/mm <sup>2</sup> Freeze Thaw approx. 1,0 – 1,5 N/mm <sup>2</sup>
<b>Transverse Deformation: Classification S1 according to BS EN12002</b>  (Deformation greater than or equal to 2.5mm and less than 5mm)	
<b>Suitable for underfloor heating:</b>	yes
<b>Packaging:</b>	bags with 20 kg net
<b>Storage:</b>	approx. 12 month in dry rooms and unopened packaging