

# Two Part Flexible Adhesive for Wall and Floor Tiles

For internal and covered external use

Ideal for all tile types including ceramic, fully vitrified, porcelain and mosaics

Extremely flexible tile adhesive for use on a wide range of substrates, including direct to internal sheet timber with priming.



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### Two Part Flexible Adhesive for Wall and Floor Tiles

#### **DESCRIPTION**

ARDEX Isoflex is a two component, rubber based wall and floor tile adhesive. It is specially formulated to fix tiles over sheeted particleboard or plywood timber (internal), fibrecement sheets and concrete (internal and covered external) where the substrates are subject to thermal and shrinkage movement

ARDEX Isoflex is suitable for both internal and covered external use. For industrial and commercial applications use on the walls only.

#### FOR FIXING (TILE TYPES)

Fully vitried and ceramic tiles, porcelain, natural stones (excluding moisture sensitive) and mosaics.

#### TO (SUBSTRATES)

- Concrete, aerated concrete, cement renders
- Metal surfaces
- ARDEX liquid applied undertile waterproofing membranes (excluding shower recess floors)
- Medium density fibre-cement sheet, compressed fibrecement sheet, plasterboard
- Existing ceramic and vinyl
- Internal sheet plywood or particleboard timber

#### SUBSTRATE PREPARATION

The surface being adhered to must be clean, firm and free of dust, dirt, oil, grease, curing compounds, release agents and other barrier materials, as well as being strong enough to support the weight of the tiles being fixed. Ensure surfaces are dry before tiling, with no residue or permanent damp.

Ensure that the substrate's required drying time, as given in the relevant part of AS 3958, is allowed to elapse prior to fixing the tiles. Prime porous substrates with ARDEX Multiprime.

#### CONCRETE/SCREEDS

This includes precast, in-situ and wood floated concrete. As concrete exhibits drying shrinkage, allow to cure for at least 4 weeks prior to tiling. Any surface laitance, concrete sealers, curing compounds, and other materials should be removed from the surface prior to tiling. Steel trowel finished concrete should be roughened mechanically to remove laitance and provide a good key for tiling. The surface shall be true and level and pitched to drains where required. The concrete should have adequate surface profile (e.g., broom finish) to provide a mechanical key. Smooth surfaces and/or dense concrete greater than 35MPa must be mechanically roughened prior to tiling.

#### CEMENT RENDER

New renders and screeds should be finished with a wood float to the required surface regularity. Screeds shall be pitched to drains where required. Allow at least 7 days to cure prior to tiling.

## PLASTERBOARD/MEDIUM DENSITY FIBRE-CEMENT SHEET ON WALLS

Tiles can be fixed directly provided that these boards are firmly and rigidly fixed in accordance with the manufacturer's instructions to adequately support the tile. Priming with ARDEX Multiprime is recommended for fibre-cement sheet but is not usually necessary for plasterboard except when jointing compound is used.

#### COMPRESSED FIBRE-CEMENT SHEET

(Internal floors only)

These sheets must be fixed strictly in accordance with manufacturer's instructions and be deemed suitable for the application by the manufacturer. Priming with ARDEX Multiprime is recommended for fibre-cement sheet but is not usually necessary except when jointing compound is used.

#### EXISTING CERAMIC TILES

(Internal Dry Areas only)

These include sound, clean, glazed and unglazed tiles. Existing tiles must be firm and stable. Roughen the surface by mechanical means, clean off contamination and dust before tiling. Ensure that at least 80% of the glaze is removed.

Tiling over existing tiles is not recommended in immersed applications.

#### AUTOCLAVED AERATED CONCRETE (AAC)

Remove loose particles from the surface. Apply two coats of ARDEX Multiprime and allow to dry.

#### INTERNAL SHEET TIMBER

Particleboard, plywood with the exception of unbonded timber such as laminated flooring or strip timber floors (e.g., cypress pine). Timber floors must be structurally sound and free from abnormal deflection. The maximum load deflection must not exceed 1/360 of the span. Timber floors must have good underfloor ventilation and underfloor moisture levels must be stable during the life of the flooring system.

If timber boards are clean and free of contaminants, there is no need for sanding. If timber boards are contaminated, these must be sanded with 40 grit sand paper (or 24 grit if timber is coated/stained) to the original timber so as to achieve a suitable surface profile and to remove surface contaminants. Vacuum clean the surface prior to priming with ARDEX Optima, mixed 2 parts powder to 1 part liquid. Add the powder to the liquid whilst stirring with a mechanical mixer. Mix until both parts are homogeneously mixed. Pre-wet a 15mm nap (sponge) roller with the ARDEX Optima slurry before applying a 2mm slurry coat over the timber substrate. Allow the slurry coat to dry fully before tiling over.

For sheeted material e.g., particleboard flooring, tape joints with PVC ducting tape. Strip timber floors must be fibrecement sheeted prior to tiling.

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#### **EXISTING VINYL**

This applies only to solid vinyl flooring which must be well bonded to the substrate, do not tile over thin vinyl flooring that has a foam backing. Remove wax, polish and any loose tiles. Clean with sugar soap and a scourer then rinse with warm water. Lightly sand the surface with a floor sanding machine and vacuum the dust. Existing Cork Tiles, ensure tiles are well bonded to the substrate. Remove any surface coating by mechanical means. Prime the surface with ARDEX Multiprime.

#### METAL SURFACES

Remove rust and mill scale mechanically and any oil or grease with a solvent cleaner. Galvanised metal should be cleaned using high pressure water and scrubbing with a stiff broom. Prime metal surfaces with an appropriate primer.

#### PAINTED SURFACES

Thoroughly remove all painted surfaces by mechanically means, do not use paint stripper or solvents. Allow surface to dry after cleaning.

## ARDEX LIQUID APPLIED UNDERTILE WATERPROOFING MEMBRANES

ARDEX undertile waterproofing must be applied according to instructions and thoroughly dry prior to tiling.

#### **MIXING**

The mixing ratio of ARDEX Isoflex is 1 part liquid to 2 parts powder by weight. Mix the ARDEX Isoflex liquid thoroughly and pour into a suitable clean plastic container. Add ARDEX Isoflex powder to the liquid whilst stirring with a paddle mixer. Mix until both parts are homogeneously mixed. Allow the mixture to stand for 5 minutes and restir before use.

The pot life of the mixed mortar is approximately 2 hours at 23°C and 50% relative humidity, do not mix more material than can be used within that time. In temperatures above 23°C, pot life will be affected. To maintain consistency, do not add more than 5% extra liquid.

#### **FIXING TECHNIQUE**

Before fixing, ensure the substrate has been prepared, the sheets have been installed as per the manufacturers recommendations and the tiles are free from dust. Tiles should be fixed in accordance with Australian Standard AS 3958.

Substrate surface, type and size of the tiles will determine the selection of the trowel. Refer to AS 3958 Table 5.6.2.2 - for the trowel size guidance depending on nominal tile size.

The tiles must be pressed firmly into the freshly combed mortar bed to ensure good contact with the mortar. Slide the tile at right angles to the notch pattern to ensure contact requirement is in accordance with AS3958. Tiles with ribbed or keyed back profiles, large format tiles (400mm in either direction), should also be back buttered to ensure complete coverage. Lift a tile from time to time to check that there are no voids beneath the tile. Do not spot fix. Any surplus adhesive must be removed from the surface of the tile and joints, before the adhesive sets.

ARDEX Isoflex can be applied at a bed thickness greater than 3mm or less than 10mm. A continuous (unbroken) 5mm layer of ARDEX Isoflex must be achieved over timber floors by using the Isoflex trowel (3mm bed 8mm notch combined).

ARDEX Isoflex has an open time of 45 minutes and an adjustment time of 20 minutes. Please be aware of site conditions when considering these times and only spread enough adhesive so that the tiles can be mixed while the mortar is still wet. All tools should be cleaned with water immediately after use.

#### **MOVEMENT JOINTS**

Movement joints must be in accordance with Australian Standard AS 3958.

#### **GROUTING**

Grouting can proceed once the tile bed is sufficiently firm, usually 24 hours after fixing at 23°C and 50% relative humidity. Allow longer for dense tiles/substrates, humid climates and low temperatures. The tile joints should be grouted with the appropriate ARDEX grout.

#### **COVERAGE**

A 20kg liquid and 40kg powder unit of ARDEX Isoflex is sufficient for approximately  $26 - 29m^2$  on walls using a  $6 \times 6 \times 6mm$  notched trowel and  $19 - 21m^2$  on floors using a  $10 \times 10 \times 10mm$  notched trowel.

#### **PACKAGING**

ARDEX Isoflex powder is packed in polylined paper sacks – net weight 20kg. ARDEX Isoflex liquid is packed in a plastic pail – net weight 20kg.

#### **SHELF LIFE**

ARDEX Isoflex has a shelf life of 12 months when stored in the original unopened packaging, in a dry place at  $23^{\circ}$ C and 50% relative humidity.

#### Pay attention to the following:

- ARDEX Isoflex is not suitable for continuous immersion applications, such as swimming pools and water tanks. ARDEX provides other systems.
- Do not use ARDEX Isoflex on commercial floors subject to heavy loads e.g., shopping centres, public areas or for fixing tiles over external timber.
- For setting of moisture sensitive natural stones, please refer to products in the ARDEX Natural Stone System.

### Two Part Flexible Adhesive for Wall and Floor Tiles

TECHNICAL PROPERTIES	
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Colour	Grey Powder White Liquid
Mixing Ratio	1 part liquid:2 parts powder
APPLICATION PROPERTIES AT 23°C AND 50% RH	
Open Time	45 mins
Adjustment Time	20 mins
Grouting Time	24 hours
Pot Life	2 hours
MECHANICAL PROPERTIES (ISO 13007)	
Tensile Adhesion Strength after	
28 Days Dry	≥0.5 MPa
Water Immersion	≥0.5 MPa
Heat	≥0.5 MPa
Freeze Thaw	≥0.5 MPa
Classification	C1 E S2

#### SAFETY DATA ARDEX ISOFLEX POWDER

Wear protective gloves, protective clothing, eye protection and face protection. Do not breathe dust/fume. Wash all exposed external body areas thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice / attention. Immediately call a doctor. IF ON SKIN: Wash with plenty of water and soap. If skin irritation or rash occurs: Get medical advice / attention. Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing.

#### **ARDEX ISOFLEX POWDER**

Wear protective gloves, protective clothing, eye protection and face protection. Do not breathing mist/vapours/spray. Contaminated work clothing should not be allowed out of the workplace.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice / attention. Take off contaminated clothing and wash it before reuse. Store locked up. Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. Additional information is in the Safety Data Sheet (SDS) at ardexaustralia.com

This product causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Suspected of causing genetic defects. Suspected of causing cancer. May cause damage to organs through

prolonged or repeated exposure.

#### **GUARANTEE**

ARDEX Australia Pty Ltd ("we" or "us") guarantees this product ("our goods") is free from manufacturing defects and will perform to any applicable specification published by us for 10 years from the date of purchase. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or compensation, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow published instructions or any act or circumstance beyond our control, including shade variations and efflorescence. If you wish to make a claim under this guarantee you must notify us (ARDEX Australia Pty Ltd, 10 Giba Drive Kemps Creek NSW 2178; Toll Free: 1800 224  $0\bar{7}0$ ; Email: technicalservices@ ardexaustralia.com) and provide evidence of your purchase of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a "consumer" under the Australian Consumer Law and to that extent you need to be aware that: "Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss of damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure".

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