ARDEX Isoflex

Two Part Flexible Underlay/Adhesive for Wall and Floor Tiles

Highly flexible · accommodates normal expansion/contraction associated with timber and concrete up to 1.3mm

Tile to a wide range of substrates, including direct to timber

Easy to measure on site with 2:1 mixing ratio

Reduces impact and airborne noise transmission

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

Suitable for wall and floor tiling

For internal and covered external use

CONFORMS TO AS 4992
C1
E
S2

ARDEX Isoflex
Two Part Flexible Underlay/Adhesive for Wall and Floor Tiles

DESCRIPTION
ARDEX Isoflex is a two component, rubber based wall and floor tile adhesive. It is especially formulated to fix tiles over timber (internal), fibre-cement sheets and concrete (internal and covered external) where the substrates are subject to thermal and shrinkage movement. When applied with the revolutionary Isoflex trowel (3mm bed 8mm notch combined) ARDEX Isoflex forms an anti-fracture, noise-reducing underlay and adhesive combined. ARDEX Isoflex is ideal for fixing all types of tiles including ceramic, fully vitrified, porcelain, mosaics and non-moisture sensitive natural stone tiles.

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

FOR FIXING (TILE TYPES)
Fully vitrified 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 fibre-cement sheet, plasterboard
Existing ceramic and vinyl tiles
Internal sheet 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. Screeds must be at least 7 days old. 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 should 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. Allow render to cure for 7 days prior to tiling.

Plasterboard/Medium Density Fibre-Cement Sheet
Provided that these boards are firmly and rigidly fixed to adequately support the tile bed, tiles can be fixed directly. Please ensure the surface is completely clean. Priming with ARDEX Multiprime is recommended over fibre-cement sheets, followed by taping of sheet joints with PVC ducting tape. Priming is not usually necessary for plasterboard except when a jointing compound is used, the compound should then be primed with ARDEX Multiprime.

Compressed Fibre-Cement Sheet
Internal Applications
These sheets must be fixed strictly in accordance with manufacturer's instructions and be deemed suitable for the application by the manufacturer.
Tiling over compressed fibre-cement sheets for external flooring applications should be carried out as per sheet manufacturer's recommendations and Australian Standard AS 3958.

Existing Ceramic Tiles (Internal 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, mdf and cork, 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. Free water sources must not be allowed under timber floors as dimensional stability will be compromised.

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. Stir until both parts are homogeneously mixed. Pre-wet a 15mm nap (sponge) roller with the ARDEX Optima slurry before applying a thick coat of slurry 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. Virgin strip timber floors must be fibre-cement sheeted prior to tiling.

Existing Vinyl Tiles
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 painted surfaces mechanically, 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. Stir the ARDEX Isoflex liquid thoroughly and pour into a suitable clean plastic container. Add ARDEX Isoflex powder to the liquid whilst stirring with a mechanical mixer. Stir 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 and the tiles are free from dust. Tiles should be fixed in accordance with AS 3958. Rough and uneven surfaces can be smoothed with ARDEX Isoflex; the surface must be left to dry before the tile installation can take place.

Substrate surface, type and size of the tiles will determine the selection of the trowel. As a general guide use a 6 x 6 x 6mm notched trowel for walls and 10 x 10 x 10mm notched trowel for floor tiling. 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).

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 100% coverage on the back of the tile. Tiles with ribbed or keyed back profiles should also be 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 has an open time of 45 minutes and an adjustment time of 3 hours. Please be aware of site conditions when considering these times and only spread enough adhesive so that the tiles can be fixed 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 has hardened sufficiently so that tiles will not be dislodged. Light foot traffic and grouting may be allowed after approximately 24 hours and full traffic after approximately 48 hours 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 x 6 x 6mm notched trowel, 19-21m^2 on floors using a 10 x 10 x 10mm notched trowel and 10-11.5m^2 using a Isoflex trowel. The coverage will vary depending on substrate condition, tile type and application technique.

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 not less than 12 months when stored in the original unopened packaging, in a dry place at 23°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.

SAFETY PRECAUTIONS

This product is considered non hazardous in normal usage. The presence of cement in the product gives an alkaline mortar which may cause some irritation if prolonged contact with skin takes place.

Avoid contact with skin and eyes; in case of contact with the eyes, rinse immediately with plenty of water and seek medical advice; wear suitable gloves and eye protection and keep the product out of the reach of children. Avoid generation of airborne dust during mixing. If swallowed do not induce vomiting, give a glass of water and contact a doctor.

For further material safety data, consult the latest Material Safety Data Sheet.

TECHNICAL DATA

Colour: Grey powder, white liquid
Mixing Ratio: 1 part liquid:2 part powder

Application Properties at 23°C and 50% RH
Open Time: approx 45 minutes
Adjustment Time: approx 3 hours
Grouting Time: 24 hours
Pot life: 2 hours

Mechanical Properties (AS 4992)
Tensile Adhesion Strength after
28 days dry: 1.0 - 1.5MPa
Water immersion: 0.5 - 1.0MPa
Heat: 1.0 - 1.5MPa
Freeze Thaw: 0.5 - 1.0MPa
Classification: C1 E S2

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