

# ARDEX X51

# Super Coverage Flexible Rubber Modified Tile Adhesive

Fast drying – grout after 6 to 8 hours

Suitable for use over green screed

Improved workability

Suitable for a range of tile types including ceramic, fully vitrified and porcelain

Flexible, achieves S1 classification

Suitable for wall and floor tiling

For internal and external use



Low VOC content - meets Green Building Council of Australia Green Star IEQ-13 requirements



ARDEX Rubber Recycling
ARDEX continually aim to employ best environmental practices, utilising recycled rubber in place of sand for manufacturing
a range of products is one of the ways ARDEX achieve this. By doing so, ARDEX not only contributes to the recycling of
approximately 250,000 used tyres per year, but also saves approximately 3500 tonnes of Australia's sand per year. For more
information on ARDEX Australia's 'Commitment to Rubber Recycling' visit www.ardex.com

#### **ARDEX Australia Ptv Ltd**

20 Powers Road Seven Hills NSW 2147 1300 788 780 technicalservices@ardexaustralia.com www.ardexaustralia.com

#### **ARDEX New Zealand Ltd**

15 Alfred Street Onehunga, Auckland, 1061 0800 227 339 info@ardexnz.com www.ardex.co.nz

## **ARDEX X51**

## Super Coverage Flexible Rubber Modified Tile Adhesive

#### DESCRIPTION

ARDEX X51 is an economical rubber modified adhesive for fixing ceramic tiles in internal and external (with satisfactory falls) situations. It can be used over render. plasterboard, fibre-cement sheet and concrete in situations where minimal movement is anticipated. When mixed with water, a flexible mortar that meets the S1 tile adhesive classification is produced. ARDEX X51 is ideal for fixing ceramic, fully vitrified, porcelain, non-moisture sensitive natural stone tiles and mosaics. ARDEX X51 can be used in residential and commercial applications with satisfactory falls.

#### FOR FIXING (TILE TYPES)

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

### TO (SUBSTRATES)

- Concrete, renders, screeds
- Compressed fibre cement sheets
- Medium density fibre-cement sheet
- Plasterboard on walls
- ARDEX liquid applied undertile waterproofing membranes

#### 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.

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 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/Screeds

New renders and screeds should be finished with a wood float to the required surface regularity. Screeds should be pitched to drains where required. Allow at least 16 hours to cure prior to tiling.

## Plasterboard/Medium Density Fibre-Cement Sheet

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 bed. Ensure the surface is completely clean. Priming with ARDEX Multiprime is recommended for fibre-cement sheets. 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 on floors** 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

### **ARDEX Liquid Applied Undertile Waterproofing** Membranes

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

#### MIXING

ARDEX X51 powder is added to clean water in a clean container whilst stirring vigorously and mixed thoroughly to give a lump free easily worked mortar of a thick creamy consistency. Allow to stand for 3 minutes. Restir the mixture thoroughly and the adhesive is ready for use. A 15kg bag of ARDEX X51 requires approximately 6.75 litres of water.

The consistency of the adhesive can be adjusted to suit site conditions and size, weight and type of tiles to be fixed. Do not apply at temperatures below 5°C. The pot life of the mixed mortar is approximately 1.5 hours at 23°C and 50% relative humidity.

#### **FIXING TECHNIQUE**

Before fixing ensure the substrate has been prepared and the tiles are free from contaminants. Tiles should be fixed in accordance with AS 3958.

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 X51 can be applied at a bed thickness greater than 1.5mm or less than 6mm.

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 X51 has an open time of 15-20 minutes and an adjustment time of 15-20 minutes. 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. Grouting and traffic may be allowed after approximately 24 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.

15kg of ARDEX X51 is sufficient for approximately 14m<sup>2</sup> on walls, using a 6 x 6 x 6mm notched trowel and 9m<sup>2</sup> on floors using a 10 x 10 x 10mm notched trowel. The coverage will vary depending on substrate condition, tile type and application technique.

ARDEX X51 is packed in polylined paper sacks - net weight 15kg.

ARDEX X51 has a shelf life of 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 X51 is suitable for only minimal movement. When setting tiles on substrates where movement is anticipated, we recommend the use of ARDEX X56, ARDEX X77 or ARDEX ABAFLEX.

For setting of moisture sensitive natural stones, please refer to products in the ARDEX Natural Stone System.

ARDEX X51 is not suitable for use over timber floors or fibre cement sheeted timber floors.

Do not use ARDEX X51 in continuous immersion applications e.g. swimming pools, tanks, etc. ARDEX provides other systems.

External tiling and shower recess floors must have adequate falls for drainage.

#### 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

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

#### **TECHNICAL DATA**

Colour: Off White Powder Mixing Ratio: Approx 6.75L water per 15kg powder

Application Properties at 23°C and 50% RH Open Time: 15-20 minutes Adjustment Time: 10-15 minutes **Grouting Time:** 24 hours Pot Life: 1.5 hours **Underfloor Heating:** Yes

#### Mechanical Properties (ISO 13007) Tensile Adhesion Strength after

>1.0 MPa 28 days dry: >1.0 MPa Water Immersion: >1.0 MPa Heat: Freeze Thaw: >1.0 MPa Transverse Deformation: >2.5 mm

8 minutes Mixing Time: 14m<sup>2</sup> (walls) 9m<sup>2</sup> (floors) Coverage: C1 TF S1 Classification:

Toll Free Technical Services: 1800 224 070 (Australia) 0800 227 339 (NZ)

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## www.ardex.co.nz

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