



ARDEX S 16

Rapid Hardening and Rapid Drying Tile and Natural Stone Adhesive

Rapid drying – can be trafficked and grouted 2 to 3 hours after fixing

Suitable for fixing porcelain and fully vitrified tiles

Ideal for natural stones – reduced risk of water staining

No lipping of floor tiles – level finish of floor tiles, especially polished porcelain

ARDEX S 16W is ideal for fixing translucent marble, glass mosaics and other natural stone tiles

For use on walls and floors

Rapidry Formula



What is the Rapidry Formula?

It is the ability of the mortar to totally bind the water used for mixing, virtually eliminating the risk of water staining.

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ARDEX S16

Rapid Hardening and Rapid Drying Tile and Natural Stone Adhesive

DESCRIPTION

ARDEX S 16 is a special rapid drying, cement-based adhesive for fixing ceramic and natural stone* floor and wall tiles, mosaics, porcelain and fully vitrified tiles in internal situations. ARDEX S 16 is particularly suitable for use in situations where the adhesive bed has to dry quickly or the tiling has to be grouted and put into use shortly after fixing.

ARDEX S 16W is a white adhesive for fixing translucent tiles and glass mosaics, limestone, marble.* It is particularly suitable for tiling in situations where residual moisture could cause efflorescence and water marks on certain natural stone tiles.

ARDEX E 90 mortar admix is recommended where movement is anticipated. It also allows direct fixing over existing clean glazed surfaces without the need for priming or mechanically grinding the glaze, in areas that do not come into contact with water.

ARDEX S 16 is suited for use in internal areas that are not permanently wet. Do not use in swimming pools or external areas.

FOR FIXING (tile types)

- Ceramic and natural stone floor and wall tiles, mosaics.
- ARDEX S 16W for translucent tiles, glass mosaics, limestone, travertine, marble and other natural stone.*

*ARDEX S 16W can be used for fixing low to medium dimensionally sensitive stone. For details please refer to technical bulletin TB010 – Fixing of Moisture Sensitive Stone/Marble.

TO (substrates)

- Concrete, render and screeds.
- For fibre cement sheets and plasterboard mix with ARDEX E 90.
- Mix with ARDEX E 90 when fixing over heated screed flooring or existing tiles.

SUBSTRATE PREPARATION

In general, 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 that the background's required drying time, as given in the relevant part of AS3958, is allowed to elapse prior to fixing the tiles.

Concrete

This includes precast, in-situ and wood floated concrete. As concrete exhibits drying shrinkage, allow to cure for at least four weeks prior to tiling. Any surface laitance, concrete sealers, curing compounds, and other materials should be removed from the surface prior to tiling. The surface should be true and level and pitched to drains where required. The concrete should have adequate surface profile (eg broom finish) to provide a mechanical key. Smooth surfaces and/or dense concrete greater than 35MPa and less than 50MPa, (contact ARDEX technical support for concrete greater than 50MPa) must be shot blasted 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 7 days to cure prior to tiling.

Plasterboard/Fibre-cement Sheet

Provided that these boards are firmly and rigidly fixed to adequately support the tile bed, tiles can be fixed directly. Priming is recommended for fibre-cement sheets but is not usually necessary for plasterboard except where jointing compound is used. Mix ARDEX S 16 with Ardion 90 when tiling over these substrates.

Existing Ceramic Tiles

These include glazed and unglazed tiles. If the area to be tiled will not be in contact with water, tiles can be directly fixed using ARDEX S 16 mixed with ARDEX E 90 without mechanically grinding the glaze. In all other situations the tiles must be mechanically roughened to remove 80% of the glaze. All dust and contamination should be removed before tiling.

MIXING

ARDEX S 16: 20kg powder to 5 litres water

ARDEX S 16W: 20kg powder to 5.2 litres water.

When using ARDEX E 90 admix, first dilute the admix 1:1 with water.

ARDEX S 16/S 16W: 20 kg powder to 3 litres of ARDEX E 90 to 3 litres of water

The working time of the mixed mortar is approximately half an hour at 23°C. The working time and strength development will be retarded at lower temperatures and accelerated at high. Do not apply at temperatures below 5°C.

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 3958:1991.
- Substrate surface, type and size of the tiles will determine the selection of the trowel. As a general guide use a 6mm x 6mm x 6mm notch for walls and 10mm x 10mm x 10mm notch for floor tiling.
- The mixed mortar can be worked for 30 minutes, then initial setting begins. Adding more water will not make the mortar ready for use again. The open time of the combed mortar bed is approximately 10 minutes if the mortar is applied immediately after mixing, this will shorten if the mixed mortar is left longer before applying. Only spread enough adhesive so that the tiles can be fixed within the open time.
- The tiles must be pressed firmly into the freshly combed mortar bed to ensure good contact with the mortar. Slide the tile at right angle to the notch pattern so that the back of the tile is completely covered by the mortar. Tiles with ribbed or keyed back profiles should also be buttered so that the voids are filled.

Tiles can be grouted after 2 hours (at 23°C and 50% relative humidity).

PRECAUTIONS

This product is considered non-hazardous in normal usage. However 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 keep the product out of the reach of children.

Avoid generation of airborne dust during mixing.

TECHNICAL DATA

Colour	S 16 – grey S 16W – white
Mixing ratio (per 20kg)	S 16 – approx 5 litres water S 16W – approx 5.2 litres water
Coverage (per 20kg)	7m ² on walls (using a 6 x 6 x 6mm notched trowel) 5m ² on floors (using a 10 x 10 x 10mm notched trowel) (Coverage will vary depending on substrate condition and tile type)
Working time (+23°C)	30 mins
Fixing or open time (+23°C)	10 minutes (using freshly mixed mortar)
Walkability (grouting floors)	After sufficient drying approx 2 to 3 hours
Grouting (walls)	After approx 2 hours
Adhesion strength (tensile)	Dry 1 day: 1.6 MPa Dry 28 days: 1.7 MPa
Storage	Approx 6 months when stored in the original unopened packaging in a dry place at 23°C.
Packaging	20kg polylined paper sack

DISCLAIMER

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Australian Standard, our instructions and recommendations and only for the uses they are intended. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program.

Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations.

The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them.

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