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PRODUCT DATA SHEET

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# ARDEX DS 20

## Decoupling Mat

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### Features

- Decoupling fleece mat for the installation of tiles, slabs, natural stone and concrete pavers
- Decoupling function minimises tension between the sub-floor and installed floorcovering
- Bridges static cracks in the sub-floor
- Loose laid system allows the installation of new tiles and slabs without damaging the existing sub-floor
- For renovation and new construction, domestic and commercial areas with loads up to 2KN/m<sup>2</sup>.
- Easy to apply and to cut
- Suitable for heated screeds



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# ARDEX DS 20

## Decoupling Mat

### DESCRIPTION

ARDEX DS 20 is a decoupling layer manufactured from polyethylene, with both sides laminated with polypropylene fleece.

### USE

For renovation, new construction and to decouple tiles, slabs, natural stone and concrete pavers on internal, dry domestic and commercial floors with loads up to 2KN/m<sup>2</sup>.

For the unbonded installation of tiles and slabs in domestic areas where there is a requirement to avoid damage to the existing sub-floor.

### SUBSTRATE PREPARATION

The substrate must be dry, free from dust and release agents and rigid enough to support the imposed loadings from the tiles/slabs, along with any subsequent trafficking. The maximum deflection of the substrate for ceramic floor tiles should be 1/360 and for natural stone 1/720.

The surface regularity of the substrate should be to SR1, so no gap is greater than 3mm under a 2m straight edge, so that a thin adhesive bed can be used. Uneven surfaces must be primed and levelled with the appropriate ARDEX primer and levelling and smoothing compound, prior to the installation of ARDEX DS 20.

ARDEX DS 20 will bridge non-moving cracks up to 0.4mm in width. If there are any differences in height between the cracks the area will require smoothing with the appropriate ARDEX levelling and smoothing compound before the application of ARDEX DS 20.

### APPLICATION

To minimise the transmission of sound to adjacent walls, install acoustic strips along the walls prior to the application of the appropriate ARDEX levelling and smoothing compound and ARDEX DS 20. Always ensure accurate fitting of the acoustic strips.

**Loose Laid System for use in rental accommodation to avoid damage to the sub-floor.**

Roll out the ARDEX DS 20 sheets and cut them to the required length, touching the acoustic strips (the sheets can be held in place with double sided adhesive tape applied to the underside).

The appropriate ARDEX adhesive can then be spread onto the ARDEX DS 20 mat with a suitably sized notched trowel, stopping a minimum of 10cm from the long edge of the mat.

The second sheet can then be pushed below the exposed edge of the first sheet, ensuring an overlapping edge of a minimum of 5-10cm, and the appropriate ARDEX adhesive applied.

The subsequent sheets can then be applied as above.

### BONDED SYSTEM FOR DECOUPLING

If necessary the sub-floor should be primed and allowed to dry.

Roll out the ARDEX DS 20 and cut roughly to size, peel back the rolls and apply the ARDEX adhesive to the substrate, (see list below) roll back and lay the prepared ARDEX DS 20 sheet into the fresh adhesive bed ensuring that it is applied within the open time of the adhesive. Ensure full adhesion between the decoupling mat and adhesive by smoothing the mat out with a trowel or float.

Make sure the sheets are butt jointed at the edge and not overlapped.

Installation of tiles can commence after approximately 2 hours, if ARDEX X 78 S, ARDEX S 16, or ARDEX X 7 R is used to adhere the ARDEX DS 20 sheets.

If ARDEX X 78 or ARDEX X 77 are used for the installation of the DS 20 sheets, tiling can commence after 24 hours.

ARDEX AF 200 should be used for timber substrates and will allow tiling to commence after approximately 2 hours.

The adhesive used must be allowed to gain sufficient bond so the ARDEX DS 20 cannot move or deform when walked on before the installation of the chosen floor tiles.

### INSTALLATION OF TILES AND SLABS ON TOP OF ARDEX DS 20

The table overleaf provides detailed information on sub-floor preparation and the appropriate use of primers and adhesives used in the installation of ARDEX DS 20.

The tiles to be installed should have a minimum size of 10 x 10cm and a minimum breaking strength of 1500 N. Ceramic floor tiles should be at least 8mm thick and natural stone should be at least 15mm thick.

We recommend the use of ARDEX X 78, or ARDEX X 78 S when installing non-moisture sensitive natural stone or concrete pavers.

To avoid staining or warping moisture sensitive natural stones should be installed using one of the ARDEX Natural Stone Adhesives (ARDEX S 16, ARDEX X 7001 or ARDEX X 32).

**NOTE:** ARDEX E 90 Admix may be required when using ARDEX S 16.

The adhesive bed should be no thicker than 4mm on top of an unbonded layer of ARDEX DS 20. The adhesive bed should be no greater than 5mm on top of a bonded layer of ARDEX DS 20.

Isolated areas of suitable adhesive may be used up to thicknesses of 10mm.

The maximum bay size must not exceed 40m<sup>2</sup> with a maximum longest length of 8m. Construction and movement joints in underlying substrates must be brought up through the final tile finish. Movement joints should be included at room perimeters and where tiling abuts fixed objects. Tile surface movement joints should be incorporated over existing movement joints and where there is a change of level/plane etc. Further guidance is available in BS 5385.

ARDEX DS 20 is not designed to stop substantial cracks or joints transmitting through the tile bed, or cracks that result from vertical movement. Any joint or crack that is subject to movement should be either stitched with an appropriate epoxy based product, such as ARDEX EP 2000, to stabilise the joint before overlaying, or carried through the floor finish as appropriate. Apply ARDEX DS 20 at temperatures above 5°C.

If in any doubt apply a trial area.

**NOTE:** For wet areas ARDEX WPC can be applied to the fully adhered ARDEX DS 20 sheets. Any joints in the sheets must be treated with the reinforcement mesh supplied with ARDEX WPC.

**NOTE:** ARDEX WPC is not suitable for use on loose laid ARDEX DS 20 sheets.

ARDEX DS 20 is not suitable in exterior or permanently wet areas, or for substrates that may degrade if covered or are soft.

### TECHNICAL DATA

According to ARDEX Quality Standards:

Width of the Sheets:	Approx. 1.0m
Thickness:	Approx. 0.4mm
Weight:	Approx. 180g/m <sup>2</sup>
Colour:	Blue
Suitable for underfloor heating:	Yes
Packaging:	50m <sup>2</sup> per coil
Storage:	can be stored for approx. 24 months in dry rooms.

**NOTE:** The information supplied in our literature or given by our employees is based upon extensive experience and, together with that supplied by our agents or distributors, is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

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

**TECHNICAL ADVICE HELPLINE**  
**01440 714939**  
**ARDEX online: [www.ardex.co.uk](http://www.ardex.co.uk)**

# ARDEX DS 20

## Decoupling Mat

Substrate	As an unbonded system	Primer	Adhering ARDEX DS 20	Floor Tile Installation onto ARDEX DS 20
Sand cement screed minimum of 3 weeks old	YES		ARDEX X 78/ARDEX X 78 S, ARDEX X 77/ARDEX X 77 S, ARDEX X 7 R, ARDEX S 16, ARDEX X 7001	ARDEX X 78/ARDEX X 78 S, ARDEX X 77/ARDEX X 77 S, ARDEX X R, ARDEX S 16, ARDEX X 7001 as appropriate for the tile being fixed
Concrete (minimum 6 weeks)	YES		as above	as above
Gypsum based screed. moisture content maximum 0.5%	YES	ARDEX P 51 1:3	as above	as above
New mastic asphalt sand keyed surface	YES		as above but ARDEX S 16 to include ARDEX E 90	as above but ARDEX S 16 to include ARDEX E 90
smooth mastic asphalt	YES-	ARDEX P 82	as above but ARDEX S 16 to include ARDEX E 90	as above but ARDEX S 16 to include ARDEX E 90
Plywood + Chipboards (min. 25 mm thick)	YES		ARDEX AF 200 ensure chipboard is free of wax etc.	as above but ARDEX S 16 to include ARDEX E 90
OSB-boards (min. 25 mm thick)	YES		NO	as above but ARDEX S 16 to include ARDEX E 90
Timber floors	YES	ARDEX P 51 Levelling with ARDEX FA 20 (if uneven)	as above but ARDEX S 16 to include ARDEX E 90	as above but ARDEX S 16 to include ARDEX E 90
PVC coverings	YES		NO	as above
Linoleum coverings	YES		NO	as above
Tiles and slabs	YES	ARDEX P 82 ARDEX P 4	as above	as above