

INSTALLATION RECOMMENDATIONS

1 Subfloor

Requirements on the quality of the subfloor are the same as when laying other kinds of floor covering. Subfloors should be (and should remain) level, firm, free of cracks and dry (see also VOB Part C, DIN 18 365 [German professional association; regulations governing floor covering work]). Dense, non-absorbent subfloors like poured asphalt or primed screeds must have an adequate thickness of dispersion adhesive (we recommend 2 mm) applied by trowel when such adhesives are used. Low-tension levelling compounds recommended by the material supplier are suitable for this. Please follow the detailed product recommendations and application instructions of material manufacturers.

The following empirical values apply to the residual moisture of various screeds at normal screed thickness, i.e. not significantly above the minimum requirements of DIN 18 560:

Screeds	Permitted residual moisture in CM %
Calcium sulphate and calcium sulphate wet screed	< 0.5
Cement screed	≤ 2.0

In the case of insulating subfloors such as poured asphalt and chipboard or underfloor heating and the like, we recommend bonding even antistatic floor coverings with antistatic adhesive. This eliminates the capacity-reducing effect of the subfloor.

2 Adhesives

Dispersion adhesive is used for bonding ARMSTRONG DLW SCALA. The recommendations of the manufacturer in question take precedence.

Please also note that the selection of adhesive and the quantity applied may have a negative impact on the indentation properties of resilient floor coverings following installation.

Manufacturer information

Bostik GmbH A.d.Bundesstr.16 D - 33829 Borgholz. Tel. +49 (0) 5425 / 801222 www.bostik-findley.de	Henkel-Thomsit Bautechnik GmbH Erkrather Str. 230 D - 40233 Düsseldorf Tel. +49 (0) 211 / 7379256 www.thomsit.de
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Kiesel Bauchemie Wolf-Hirth-Str. 2 D - 73730 Esslingen Tel. +49 (0) 711 / 93134352 www.kiesel.com	Mapei GmbH Bahnhofsplatz 10 D - 63906 Erlenbach Tel. +49 (0) 9372 / 98950 www.mapei.de
WULFF GmbH Wersener Str. 30 D - 49504 Lotte Tel. +49 (0) 5404 / 881-0 www.wulff-gmbh.de	Schönox GmbH Postfach 1140 D - 48713 Rosendahl Tel. +49 (0) 2547 / 910234 www.schoenox.com
UZIN UTZ AG Dieselstr. 3 D - 89079 Ulm Tel. +49 (0) 731 / 4097258 www.uzin-utz.com	Wakol GmbH Bottenbacher Str. 30 D - 66954 Pirmasens Tel. +49 (0) 6331 / 8001186 www.wakol.com

The adhesive manufacturers mentioned are given by way of example of many others. The adhesives recommended by the adhesive manufacturers should be obtained directly from the manufacturers or from the Armstrong DLW helpline on +49 71 42 / 71 – 735.

3 Measuring up and determining requirements

Areas are measured up and divided (guide line) to give the optimum distribution. Whole patterns look best in doorways and corridors. For measuring up, the area for covering is calculated on the basis of a supplement corresponding to experience which needs to be greater in the case of oblique or round areas than straight ones.

4 Storage, conditioning, installation conditions

Proper storage of the floor covering is a precondition for its characteristics being maintained for installation purposes. Before installation, the floor covering should be stored in a dry place which is not too hot. In the case of tiles, cartons should not be stacked more than 8 high. Perfect installation of ARMSTRONG DLW SCALA cannot be guaranteed at temperatures which are too low. Installation in accordance with the rules of the profession assumes a minimum ambient

temperature of +18 °C. However, it is not only ambient temperature which is significant during installation work, but also the temperature of the subfloor; this should be at least +15 °C or, in the case of underfloor heating, between +18 °C and +22 °C. Relative humidity should be no more than 65 % (ideally 40 % to 60 %). These climate conditions should be maintained for 3 days before preparatory work starts and for at least 7 days after completion.

Even at suitable temperatures, the floor coverings still need to be conditioned before being laid. We recommend fanning out tiles before installing them so that they can adjust to floor temperature.

The manufacturer ensures colour matching by supplying from one lot marked with the same lot number. However, slight deviations in colour cannot be ruled out completely. Ensure that only one and the same lot number is installed within one room.

5 Installing Armstrong DLW SCALA

The different formats are installed without pointing. Ensure when laying that you work only in clean shoes with soft soles. Clean installation prevents visual defects.

If ARMSTRONG DLW SCALA formats have to be adapted, they should be scored with a utility knife on top and then cut using a hook blade. Edging tiles are cut in once the main area has been bonded. To do this, place the edging tile precisely on the adjacent tile. Another tile is laid so that it abuts at the edge of the main area. The tile underneath to be cut in is scored along the top edge of the tile using a utility knife and cut off with the hook blade. It is also possible to use a tile cutter.

The decorative strips supplied are inserted in the bed of adhesive as installation progresses. The decorative strips cannot be installed at the same time with SCALA EASY.

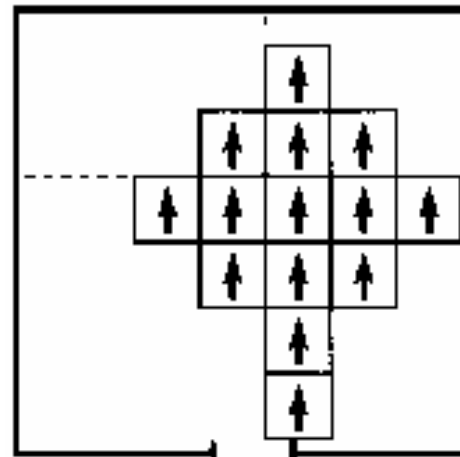
ARMSTRONG DLW SCALA flooring is supplied by the factory with chamfered edges. If an edge needs to be cut, it can quickly be given a new chamfer using the Fascut tool.

To wet the back, it is essential to select the correct notch spacing, change trowel blades in good time and rub/roll the floor covering thoroughly with a heavy section roller (50 kg). If necessary, this should be repeated during the curing period.

With regard to arrangement, a distinction should be made between the following.

a) Laying parallel

A parallel with the main front of the room is determined before installation using a guide line. The distance from the wall is a multiple of tile size minus approx. 1 cm. In halls, this measurement can also be taken from the lowest point of the threshold rather than the wall. The starting point is marked on the line determined.



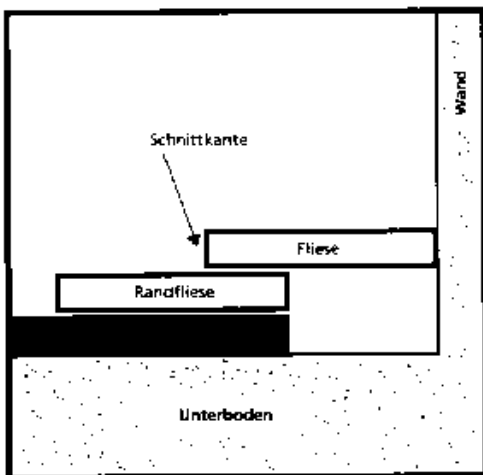
Laying tiles parallel

This starting point is determined so that at points which are particularly obvious, for example the main entrance, only virtually whole tiles are laid and no narrow strips are used. From the starting point outwards, a row of tiles is now placed loosely along the guide line and weighed down with stacks or cartons of tiles.

In the case of large rooms, this row of tiles is left until the adjacent area has been laid so as to avoid offsets. In the case of small rooms, it is enough to leave one tile as a reference.

b) Laying diagonally

The room is first divided up symmetrically and the axis determined using a guide line. Now determine how the tiles run out at the walls and the main entrance. The diagonal of a square tile is the length of the side of the tile x 1.4. If small triangles now result here, the room axis is shifted sideways by a fourth of the diagonal. The same applies to the starting point. In asymmetrical rooms, a guide line is used to determine the parallel at a distance from the main front which corresponds to a multiple of the tile diagonal minus approx. 1 cm. Here too, it should be taken into account that only virtually whole tiles should be positioned at the main entrance and, between them, half-tiles but never small triangles. A double row of tiles is then placed loosely along the guide line, the first row of tiles having opposing corners lying on the guide line and the corners of the second row of tiles touching it.



Cut edge of edging tiles

In the case of large rooms, a diagonal row of tiles is now laid from the starting point outwards and used as the baseline for laying. In the case of small rooms, it is enough to leave one tile as a reference. The edging tiles are cut in using a hook blade or utility knife after the surface has been bonded.

c) Laying a herringbone pattern

Wood-effect plank shapes are usually used for laying herringbone patterns. The planks are first laid in the room loose so that they can be distributed with as little cutting as possible. If there are corners in the pattern, the corner positions of the planks should be laid cleanly against a large 90° angle so that no offset results. The ideal is for several large 90° angles to be available so that a 90° angle can be laid at virtually every corner position. The adhesive should then only be applied to a few rows of planks and when laying the last row, it is recommended that the 90° angles be used to check again at plank corners. If you proceed in accordance with this system, there will be no problems installing a herringbone pattern. The narrower and longer the individual planks, the more carefully you need to adhere to this system.

6 Bonding

6.1 Armstrong DLW SCALA

Armstrong DLW SCALA 2.5 mm thick is always covered with adhesive over its entire area. Always follow the instructions of the adhesive manufacturer in the process. In order for the back of the floor covering to be wetted, it is essential to select the correct notch spacing, change trowel blades in good time and rub thoroughly. Continuously check that the back is wetted by pulling up tiles as you work.

After applying the adhesive, start installing from the tiles laid out as a reference point or line. In the case of large rooms, we recommend laying in

stages in order to avoid offsets. To wet the back, carefully rub or press on the tiles. This procedure may need to be repeated.

Armstrong DLW SCALA EASY

Armstrong DLW SCALA EASY was developed especially for loose installation, for example on double floors. Before laying out the tiles/planks, apply a non-slip coating to the whole of the subfloor (in accordance with the manufacturer's instructions). Once the solvent in the non-slip coating has evaporated completely, start laying the tiles/modules as described in Section 6.1.

In areas with extreme variations of temperature e.g. exposure to direct sunlight, SCALA EASY needs to be installed with permanent adhesive.

7 Armstrong DLW SCALA on underfloor heating

Armstrong DLW SCALA can in principle be bonded to subfloors with underfloor heating; its thermal resistance is so low that it is virtually irrelevant for operation of the heating system.

7.1 Dry design

Dry designs can be made up of calcium sulphate or plaster fibre boards. Armstrong DLW SCALA can be installed once the joints have been feathered.

7.2 Wet design (A1 – A3)

With wet designs, heating pipes or cables are embedded in a floating cement or anhydrite screed. Before the floor covering is installed, the heating system installer should ensure that the moisture which is driven out by the effect of heat escapes before the floor covering is laid. The heating system installer should hand over a report relating to the heating up and cooling down measures carried out for this purpose.

A moisture test may only be carried out at the measuring points so marked by the person laying the screed. If no measuring points are available, the floor installer must submit his reservations to the client in writing.

8 Cleaning and care

The installer must give the client written care instructions for the floor covering. The "ARMSTRONG DLW SCALA Cleaning Recommendations" are available and can be ordered by calling +49 71 42 / 71 – 340.

9 Protecting product properties

Because of the risk of damage, it is advisable to have the finished floor coverings accepted or partly accepted in accordance with § 12 VOB/B without delay.

If special protection is required for premature use, cover the whole of the floorcovering with suitable covering materials such as felt cardboard, plastic film or the like.

10 Special notes

10.1. Office chairs with castors

Office chairs with castors must be equipped for use on resilient floor coverings with Type W castors to EN 12529, i.e. with soft castors of the specified dimensions (50 mm diameter, 20 mm running surface, 100 mm balling radius of running surface). This should be taken into account when procuring new chairs with castors.

10.2 Charring

Smouldering cigarette butts can cause charring on synthetic floor coverings. These floor coverings should therefore not be laid in pubs likely to be subject to this kind of problem.

10.3 Discoloration

In the event of prolonged contact, rubber can leave indelible discoloration on all resilient floor coverings. Examples of possible causes are: car tyres, covering materials, castors or feet on washing machines, refrigerators, prams. This discoloration will not appear immediately, but as a consequence of the migration of substances and subsequent exposure to light.

To avoid this kind of discoloration, use castors made of polyurethane. If this is impossible, we recommend using foot/castor cups.

Bitumen-based asphalts, mineral oils, greases, coloured shoe polishes deposited on the floor covering by shoes can result in discoloration on light-coloured synthetic floor coverings in areas of heavy traffic. This will happen, for example, in areas which are accessed from asphalted streets, in kitchens or in offices of petrol stations and car repair workshops.

10.4 Adhesive tapes

If adhesive tapes are used on the floor covering, please check compatibility with the manufacturers in question.

11 Manufacturers of tools

The cutter for cutting SCALA tiles and the Fascut tool can be ordered from:

WOLFF GmbH
Diesel Str. 19
D – 71665 Vaihingen / Enz-Aurich
Tel. +49 (0) 70 42 / 95 11 0
Fax +49 (0) 70 42 / 95 11 44
www.wolff-gmbh.de

Janser GmbH
Maschinen- und Gerätebau
Postfach 1163
D – 71135 Ehningen
Tel. +49 (0) 70 34 / 1 27 0
Fax +49 (0) 70 34 / 88 38 44
www.janser.com

Witte Metallwaren GmbH + Co. KG
Auf dem Tigge 15
D - 59269 Beckum
Tel. +49 (0) 25 21 / 9 30 20
Fax +49 (0) 25 21 / 50 34 44
www.witte-beckum.de

Your contact for installation:

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