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Installation

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1. Control of the floor

The customer is responsible for the climate of the room. Existing decorative flooring should also be controlled before the installation of a textile floor covering. The floor should be securely bonded to the subfloor and be free of polish remnants.

2. Preparation of the subfloor

For the preparation of subfloors, the trowel is an important tool. The DIN 18365 ,Preparation of floors', § 3.2.2. says: For floor coverings which are to be laid with- out underlay, the subfloor should be smoothed by patching; if the subfloor has bigger asperities, it must be levelled. The patching mass or levelling mass should be applied in such a way that it is strongly and permanently bound to the subfloor, that it does not crack and that it resists pressure.

2.1 Preparation of cement subfloors

Cement subfloors are generally absorbent grounds. Therefore, a bonding primer should be applied prior to patching. The bonding primer prevents the water of the patching mass from sinking too quickly. An epoxy resin primer, into which quartz sand is strewn, should be applied to damaged areas. Residual moisture max. 2% CM. If the cement subfloor is cracked, one should distinguish between two kinds. Small, narrow, superficial cracks can be filled with a patching mass, after thorough cleaning. Big cracks which traverse the whole thickness of the cement should be fixed. First, these shrinkage cracks should be widened on their whole length; then, transverse notches should be made every 10 - 15 cm/4 - 6 inches. (Be cautious with radiant heating!) Stabilizing clamps should be fixed into the notches and epoxy resin should be poured into all cracks and notches. In this way, the cement areas are strongly bonded to each other. Caution: Separation of buildings (dilatation cracks) are by no means to be bonded. Quartz sand should be strewn into the epoxy resin to ensure a perfect bond when patching.

2.2 Preparation of poured asphalt subfloors

Poured asphalt subfloors should be level and sealed and have a smooth surface, rubbed with sand. The surface should neither be wrinkled nor be enriched with bitumen. Poured asphalt subfloors should be patched directly, without the application of a primer. The only prerequisite is that the surface should have been sanded so that it can grip effectively. When selecting the patching material (plaster or cement), you should consult the manufacturer.

2.3 Preparation of calcium sulphate subfloors (previously: anhydrite subfloors)

It is important to remove the slop layer that develops from drying calcium sulphate subfloor. It can easily be done by abrading with coarse sand paper. It is indispensable to vacuum this dust thoroughly. As calcium sulphate subfloor is very absorbent, it is absolutely necessary to apply a bonding primer. If patching is necessary, a usual cementbound patching mass may be used. Residual moisture must be under 0.5% CM.

2.4 Preparation of non-absorbent calcium sulphate subfloors (previously anhydrite subfloors)

It is absolutely necessary to apply a bonding primer to the calcium sulphate subfloor. If patching is necessary, a usual cement-bound patching mass, may be used. Residual moisture under 0.5% CM.

2.5 Preparation of magnesia subfloors

An appropriate bonding primer should be applied to magnesia subfloors prior to patching with a cement-bound patching mass. Please observe the recommendations of the manufacurer of the bonding primer.

2.6 Preparation of bare concrete subfloors

If bare concrete subfloors are to be covered with textile floor coverings, they should be prepared according to § 2.1. Use an appropriate patching mass to make them even. Observe residual moisture and if necessary take alternative measures to ensure sealing.

2.7 Preparation of non-absorbent wood underlays (or similar material)

More and more, tongued and grooved boards are used. Whether they are screwed every 40 cm/16 in. on wooden floors or floating on dry rubble, they are a proper ground for the installation of textile floor coverings, if they have been properly installed. If patching is required, you should take advise from a technical specialist.

3. Preparation of existing decorative flooring

The existing decorative flooring must be carefully prepared depending on its nature and the kind of installation to be used.

3.1 Preparation of stone-floors and terrazzo-floors

An appropriate primer should be applied if these floors have to be smoothed by patching.

3.2 Preparation of parquet

Polish remnants should be removed. Loose slats should be fixed. If the parquet is not sealed, or if the coating is not intact, it is necessary that the parquet itself, and its bonding to the subfloor, not be damaged during treatment. If necessary, you should take advise from a technical specialist.

4. Acclimatization of the adhesive

Like the carpet, the adhesive should be acclimatized to the room climate. Please observe the instructions of the adhesive manufacturer.

5. Climate of the room

To obtain best resulsts, air humidity in the room should be at least 40% to 60%. If air humidity is not sufficient, the natural fibres could wear more rapidly because they dry up. The floor temperature should be at least 150 and the air temperature at least 18° C.

6. Observance of the general sales conditions

Please observe in particular the following paragraphs of the general sales conditions:

Defective merchandise must be reported to us in writing within seven days of reception of the goods..

Exceptions to our liability: No complaints are recognised once the goods have been cut or partially installed; they are not recognised either if it is apparent that our instructions for laying and cleaning carpets have not been observed.

7. Recommendations of adhesives for wall to wall carpets

In a general way, the recommendations of the manufacurer of the adhesives are to be observed..

7.1 Dispersion adhesive

Characteristics: Dispersion adhesive, gives a strong bond. Easy to use, it is very low in emissions

(EC 1, Giscode D1), suitable for castor-chairs in accordance with DIN 68131, and

can be used on underfloor heating.

Range of application: Carpets with secondary back/CottonBac

Airing time: As specified by the manufacturer
Open time: As specified by the manufacturer

Necessary quantity: Trowel notch size A 2: approx. 250 - 300 g/m²

Trowel notch size B2: approx. 500 - 600 g/m²

Traffic allowed: After 24 hours
Special information: - Sensitive to frost

- The manufacturer's recommendations are valid

7.2 Contact adhesive

Characteristics: Solvent-free contact adhesive; it gives a strong bond. Traffic allowed at once. Can

be used on underfloor heating.

Range of application: Coir and sisal carpets with CottonBac, wool carpets on stairs and walls

Airing time: approx. 15 minutes

Necessary quantity: Brush A 0 approx. 250 g/m²

Trowel notch size A 3 approx. 300 - 400 g/m²

Traffic allowed: At once

Utilization: Apply adhesive with the brush or with the roller on the subfloor and the back of the

carpet. Ventilate until the adhesive is dry. Lay the carpet on the subfloor and press.

Special information: - Working temperature: not under 18° C / 64° F

- Emanations - The room should be well ventilated

- Toxicant, class 4

- The manufacturer's specifications are valid

- Please observe the requirements of the Hazardous Substance Ordinance.

8. Specifications of special adhesives for cut edges

8.1 RAG-Coll K

Characteristics: Transparent and fluid adhesive for sealing cut edges. Good adhesion, quick

setting, easy to use.

Inflammaglbe - Contains ketones.

Emanations - The room should be well ventilated.

Range of application: Sealing the edges of the supporting fabric and of the cut edges of coir and

sisal carpets. The adhesive is slightly visible after gluing..

Drying time: Approx. 15 - 20 minutes by 20° C / 68° F

Necessary quantity: 1 liter per 15 - 25 m/16 - 27 yd, depending on the article

Traffic allowed: At once after drying

Utilization: Pour RAG-Coll K into a seam applicator bottle with a fine nozzle.

Apply sparingly along the cut edges.

Available at: Switzerland: Ruckstuhl (dilute with Aceton)

other countries: Collano, FR-Marlenheim (article Chimiprène H 2122.0)

Container: 1 liter

Please address all your questions to the manufacturer directly.

9. Installation diagrame

remarkds	* Streching recommended only with reserve	* Streching recommended only with reserve		** woven, very thin, streching recommended only with reserve		very thin¹/ report, streching recommended only with reserve	
tiles	* 2 5	* 2 5	ш	* 50 22 5	ı		
streching	*	*	ı	ш	ш	ш	ı
stairs	Ω	ı	ı	Δ	1	ı	1
direct glue-down	ပ	U	1	U	ပ	U	U
on underlay	В	Δ		Δ	Δ	B	B
loose laying	4	4	ı	4	⋖	⋖	4
products	Calicut	Flow, Jaipolino, Jaipur, Manila, Net	Calicut, Rollertile	Flatwool**, Rollerwool-/color	Bilevel, Crespo basic, Crespo custom, Loop, Piu, Zand	Dry, Hampton, Herringbone ^{1/2} , Loft¹, Lantos¹/², Martinique², Plain², Rep, Rose Diamond¹/²	Capra², Colombo due, Element², Feltro, Linteus, Madison, Zand
Installation diagrame	Coir	Coir / sisal	Tiles	Tufted-/woven carpets wool/hair yarns	Tufted carpets wool/hair yarns	Wovenn carpets wool/hair yarns	Particularities

10. Recommendations for the installation

The different possibilities of installation mentioned in the chart are described on the following pages. Every letter, for ex. "A" means a certain operation which has been tested by Ruckstuhl's specialists and has been found good in practice.

Bitte beachten Sie für das Verkleben der Produkte unsere Hinweise im Anhang.

Product Flatwool: Please note that this quality should not be cut along the lath, but along the thread. With the design "Stripe" observe the succession of the colours (dark/clear/dark/ clear, etc.), when cutting the widths.

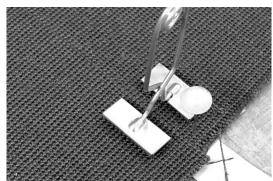
Loose laying (A)

The textile floor covering is fixed nowhere on the subfloor or the underlay (except by the doors). For hardfibre carpets, loose laying is only recommended for rooms under $20 \text{ m}^2/215 \text{ sq.ft.}$ Please, take into consideration that the carpets may shrink or form waves if the room climate is unfavourable. In this case, it is essential to make a full-area glue-down.

- 1. Before laying, carpet and adhesive must be acclimated for at least 48 hours!
- 2. Leave a space of 3-5 mm / 0.12-0.20 in. along the walls..
- 3. Cut the selvedge (see page 7 RAG-Coll K).
- 4. Join the widths together with electroseaming, for ex. with a SILVASEAM equipment. The utilization of a double-sided adhesive tape is not sufficient for hardfibre carpets.
- 5. Front seaming should be avoided.



Cutting the selvedge



Seaming of the carpet widths

The professional glue-down of Ruckstuhl carpets on underlay (B)

You should consult a technical specialist on the suitability of the underlay to be used. Full-area gluing of the underlay on ready-to-be-laid, clean, smooth, dry and absorbent subfloor.

Recommended adhesives: dispersion adhesive (see point 7.1)

If carpets with CottonBac are glued on underlay, they are not suitable for castorchairs.

- 1. Before laying, carpet and adhesive must be acclimated for at least 48 hours.
- 2. Glue the padding on the subfloor on the whole surface.
- 3. Roll the padding with a carpet roller and cut along the walls.
- 4. Place the widths facing the window.
- 5. Unfold the widths and line them up; match the paterns, if necessary.
- 6. Cut the selvedges.
- 8. Roll up the width and spread the adhesive uniformly over the padding with a trowel.
- 9. Ventilate in accordance with manufacturer's instructions. Lay the width into the wet adhesive.
- 10. Roll down the width crosswise, press with the carpet roller. Lift the carpet partially again to control if enough glue adheres to the carpet. The carpet back should show a regular adhesive coating.
- 11. Unfold the width back into the glue bed and press with the carpet roller. The necessary quantity of adhesive is now known.
- 12. Unfold the next width. Draw a pencil line. Place the width, its edge overlapping the edge of the already laid width by 1 2 threads.
- 14. Roll up the second width. Spread the adhesive uniformly. Ventilate in accordance with instructions. Unfold the carpet and roll it with the carpet roller.
- 14. Lift the overlapping part with the awl and press it against the end already laid. Caution: the carpet should not come into touch with the adhesive.
- 15. The resulting wave should be flattened at once with the carpet roller. It is possible to reat the cut edge (seam) with the kneekicker or the hammer to make a better fitting. Be cautious: You should not make marks with the hammer on hardfibre carpets. One hour later, press the carpet again with the carpet roller and check your work.
- 16. With the stair iron, knock down the carpet into the angle between floor and wall. When the glue has set, trim along the walls. knock down protruding ends with the stair iron.
- 17. Front seams are to be avoided.
- 17. In accordance with today's state of the art methods, the finishing of the seam with Silvaseam or Speedseam is the recommended procedure.



Teppich gründlich anwalzen

Full-area glue-down (C)

Full-area glue-down on ready-to-be-laid, clean, smooth, dry and absorbent subfloors. Recommended adhesives: synthetic resin dispersion adhesive.

- 1. Before laying, carpet and adhesive must be acclimated for at least 48 hours.
- 2. Place the widths facin the window.
- 3. Unfold the widths and line them up; match the pattern, if necessary.
- 4. Cut the selvedges (see page 7 RAG-Coll K).
- 5. Roll up the width and spread the adhesive uniformly over the subfloor with a trowel.
- 6. Lay the carpet width by width, spread the adhesive up to the pencil line.
- 7. Ventilate in accordance with manufacturer's instructions. Lay the width into the wet adhesive. If widths are long, start in the middle..
- 8. Roll down the width crosswise, press with the carpet roller. Lift the carpet partially again to control if enough glue adheres to the carpet. The carpet back should show a regular adhesive coating. If this is not the case, add some glue, but not too much..
- 9. Unfold the width back into the glue bed and press with the carpet roller. The necessary quantity of adhesive is now known.
- 10. Unfold the next width. Draw a pencil line. Place the width, its edge overlapping the edge of the already laid width by 1 2 threads.
- 12. Roll up the second width. Spread the adhesive uniformly. Ventilate in accordance with instructions. Unfold the carpet and roll it with the carpet roller.
- 13. Lift the overlapping part with the awl and press it against the end already laid. Caution: the carpet should not come into touch with the adhesive.
- 14. The resulting wave should be flattened at once with the carpet roller. It is possible to treat the cut edge (seam) with the kneekicker or the hammer to make a better fitting. Be cautious: You should not make marks with the hammer on hardfibre carpets. One hour later, press the carpet again with the carpet roller and check your work.
- 15. Alternative procedure: insert both cut edges in the gluing bed, press together with a two-headed tension tool and fix in place with seam clamps.
- 16. With the stair iron, knock down the carpet into the angle between floor a and wall. When the glue has set, trim along the walls. Knock down protruding ends with the stair iron.
- 17. Front seams are to be avoided.



Knock down the carpet into the angle between floor and wall



Knock down protruding ends with the stair iron

Installation of carpets on stairs (D)

The front edge of the steps should be rounded (2.5 cm / 1 in. radius). You may lay a felt or rubber padding under the carpet. This makes the carpet more durable.

Recommended adhesive: a contact adhesive.

- 1. Before laying, carpet and adhesive must be acclimated for at least 48 hours.
- 2. Cut the carpet somewhat larger than the stairs.
- 3. Always start carpeting from the bottom of the stairs. Apply adhesive on the stairs and on CottonBac with the lambskin roller. Ventilate in accordance with instructions.
- 4. Start under the first step and work to the top. Make sure that the carpet threads are straight along the edge of the step.
- 5. Fix the carpet on the next step, step/wall/front with the stair iron. Cut and press down the edge of the carpet with the stair iron.
- 6. In the case of spiral stairs, work with a template. The carpet must always be laid straight along the front edge of the step. If a side is open, the steps should be finished.

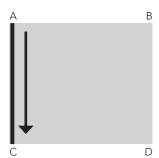
Stretching (E)

If a carpet with CottonBac is stretched, it is not suitable for castor chairs. If a carpet with CottonBac must be seamed by welding, it is necessary to remove the CottonBac on 1.5 cm / 0.6 in. along the edges before welding, in order to have the tenstion on the carpet and not on the CottonBac.

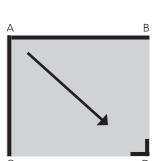
- 1. Before laying, carpet and adhesive must be acclimated for at least 48 hours.
- 2. Prepare the subfloor for installation.
- 3. Fix the grippers.
- 4. Place the padding on the subfloor at right angles with the seams of the textile floor covering.
- 5. Spread the carpet widths; they should face the main window front.
- 6. Match the patterns.
- 7. Seal the cut edges. This must be done very carefully, especially for Wilton carpets. Important: It is advisable to start in the middle of the room to adjust pattern variations. It is possible that the pattern cannot be perfectly matched..
- 8. The widths should be seamed together by sewing or welding, for ex. with a SILVASEAM equipment. Be cautious: When welding, make sure that the heat does not change the colour of the carpet surface and that the patterns are matched..
- 9. Spread the carpet and cut it to the approximative dimenstions of the room.
- 10. Streth the carpet with a carpet stretcher. The main tension must be in the seam direction (lengthwise or as manufactured). The stretching diagram shows in which succession the sides must be stretched.



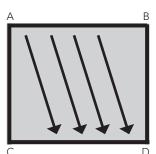
Before stretching on gripper and padding



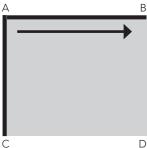
1. Corner A is hooked on, the carpet is stretched to C and hooked on along side A-C.



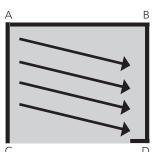
C D 3. Stretch diagonally from A to D and hook on at D



5. Stretch from wall A-B towards wall C-D and hook on



C D 2. Stretch from A to B and hook on side A-B



C D 4. Stretch from wall A-C to wards wall B-D, at the same time correcting corner D

Installation of Ruckstuhl carpet tiles (F)

- a) Coir tiles "Calicut
- 1. Using a chalk line or laths, determine exactly where the tiles are to be laid in the room, and in which direction. They can be laid chessboard fashion or offset half a width.
- 2. Do not begin at the wall; the middle of the room is best.
- 3. Lay one or two rows, press the tiles on the subfloor with laths and fix them with nails or plasticizer-resistant adhesive tape.
- 4. Lay three to four rows of tiles, press them with laths and hammer.
- 5. Cut to size immediately and press the tiles firmly together, so that they bulge up slithtly during laying. The best manner to trim the tiles is to mark and cut them on the reverse side, with a piece of soft wood underneath. Trapezoidal blade, angle square and straightedge are indispensable..
- 6. Full-surface gluing is not necessary. Partial gluing is advisable in large rooms over 20 m²/216 sq.ft. or a light adhesive (stop layer) to prevent slipping should be rolled on over the whole area.
- 7. It is not possible to roll movables on tiles which have been loosely laid.

b) Wool tiles "Rollertile"

- 1. Before laying, tiles and adhesive must be acclimated for at least 48 hours.
- 2. Installation on ready-to-be-laid, clean, smooth, dry and absorbent subfloor.
- 3. Minimum workin temperature on the ground: 15° C / 59° F.
- 4. Using a chalk line or laths, determine exactly where the tiles are to be laid in the room, and in which direction.
- 5. Do not begin at the wall; the middle of the room is the best.
- 6. For areas over $20 \text{ m}^2 / 15 \text{ sq.ft.}$ gluing or a stop layer is recommended.
- 7. Full-surface gluing is necessary at places of work where castor chairs are used.
- 8. Apply adhesive with a mohair roller or a finely notched trowel.
- 9. In view of the bouclé structure, the edges may project to some extent (cut loop). These should be tidied up only after you have finished laying.

11. Cutting Ruckstuhl carpets

The following recommendations for cutting Ruckstuhl carpets will be useful to you. But the carpet fitter has the final responsibility for professional cutting.

Trapezoidal blade

With a trapezoidal blade, along a lath, beginning at the top:

Plain, Jaipolino, Jaipur, Calicut, Manila, Net, Dry, Flatwool, Rollerwool, Rollercolor, Loft, Feltro basic/color

With a trapezoidal blade, along a lath, on the reverse side of the carpet:

Porta

Before cutting, apply: PUR adhesive for seams along a lath. Cut with a trapezoidal blade, beginning at the top: Element, Capra, Colombo Due

Scissors / Carpet cutter

Along the lane between sections, with scissors or a carpet cutter:

Trap

Along the warp thread, with scissors or a carpet cutter:

Rep

Before cutting, appy: PUR adhesive for seams along a lath. Cut with scissors or a carpet cutter:

Flow, Lantos

From top to bottom with scissors or a carpet cutter:

Bilevel, Zand

Hooked blade:

Along the warp thread or ruler, with a hooked blade, on the reverse side of the carpet:

Più

12. Finishing of cut edges

When one or more seams are used, the important thing is to secure the seam along the edges with the help of an adhesive. For this purpose a standard commercial ,white glue' or PVA glue (also known as wood glue) may be used. The glue is carefully applied between the edges. If the glue oozes out over the edges, too much glue has been applied. So you should test the application first, using a sample.

This method can be used with all Ruckstuhl qualities apart from Feltro.

Linteus:

Before cutting, apply adhesive on the black warp thread, one thread wide, beginning at the top, and let to dry. Cut carefully with scissors or trapezoidal blade on the edge of the black warp cotton thread.

Important:

The white cotton weft thread must be bound by the black warp thread so that it cannot stand up. Care must be taken to achieve a precise rapport.



Adhesive for seams very sparingly in a linear manner along a lath

Ruckstuhl AG

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