

## **Fitting instructions for flatwoven carpets, commercial use: Alfa, Beta, Beta Design, Gamma, Golf, India, Juliett, Lima, Sigma, Randy, Delta**

The articles, Alfa, Beta etc., like other flat weave carpets, is not fitted the same way as conventional loop pile and velour carpets. For this reason please observe all the details specified in these fitting recommendations.

The information provided in these fitting instructions is of general nature. Only proper and expert fitting in accordance with the "General Technical Regulations" ATV / VOB Part C DIN 18365 and the latest notice sheets and guidelines ensures proper and expert workmanship.

These fitting recommendations are intended as notes for the experienced fitter and lay no claim to being complete. If the recommendations and processing instructions of the supplier of auxiliary materials, e.g. adhesives and stopper material, differ, the information provided by the manufacturer is always binding. All materials to be used must be designed in such a way that they are suitable for each other and do not have any negative influence on the overall construction and floor covering. It is the responsibility of the planner and the fitter to use products that are suitable for each other or to provide sufficient test areas so as to exclude the possibility of any sources of error.

It is part of the fitter's duty of inspection and care to notify the owner or planner of any objections in writing before starting work.

If our carpet rolls arrive damaged despite their transport packaging, please note this on the haulier's delivery note immediately and accept the goods under reservation if necessary. Only if such notes have been made is it possible to take action against the haulier for the damage.

### **1. Substrates**

The most important types of substrates are: cement screed, anhydrite screed, concrete floors, poured asphalt screed, magnesium oxychloride screed, wooden chipboard, prefabricated floor screeds etc.

#### **1.1 Inspecting the substrates**

Before laying textile floor coverings, the contractor (fitter) must inspect the substrate carefully to verify whether the covering can be processed. After inspection, the fitter must submit to the client any objections in writing according to VOB Part B § 4 No. 3.

Some examples:

- o unevenness exceeding the evenness tolerance according to DIN 18202
- o cracks in the substrate
- o closed movement joints
- o insufficiently dry substrate
- o surface of the substrate is too rough and porous
- o surfaces of the substrate are soiled
- o surface of the substrate is insufficiently firm
- o no heating-up report in the case of under floor heating

- o no screed markings for measuring moisture
- o adjacent components at an incorrect height
- o unsuitable temperatures of the substrate and climatic conditions (Minimum temperature 18 °C with a maximum relative air humidity of 65 %. These atmospheric conditions in the room must be maintained 3 days before and at least 7 days after fitting, day and night.)
- o edge insulating strip does not project
- o etc.

## **Attention!**

**Non-observance of the substrate inspection may lead to damage during or after fitting.**

### **1.2 Moisture check**

With the exception of asphalt constructions, substrates evidence household moisture. As soon as these key values are exceeded, i.e. the substrates are still too damp, the increased moisture present at the time of fitting can have a harmful effect in the period thereafter. For this reason, the substrate must be inspected before fitting by means of a suitable moisture measurement process, e.g. the CM method. The respective values must be checked against the state of the art. In the case of under floor heating, the owner must present a heating-up and cooling-down report according to the cutting point coordination. In addition, the floor layer must carry out a moisture check at marked places (without heating pipes). During and after fitting, the floor temperature must be approx.  $\pm 22$  °C.

### **1.3 Primers and stoppers**

Substrates with which stoppers will not bond permanently must be primed with suitable primers, e.g. very thick, very smooth or very porous and highly absorbent substrates. A primer is always required in the case of anhydrite and magnesium oxychloride screeds.

## **2. Fitting on old substrates**

Substrates to which a wearing covering had already been glued in the past must be freed from adhesive residues and other soiling so that a firm, smooth surface is created. It must then be primed and stopped with absorbent stopper. Please refer to the processing guidelines of the stopper manufacturer for the suitable stopper, the thickness of the application and the water-cement factor. It is recommended to use materials from one manufacturer which are co-ordinated.

## **3. Processing the carpet**

Before being cut to size, the carpet supplied must be inspected for faultlessness, its colour and all other identifiable defects. The general and usual production-related tolerances (e.g. colour of a batch according to grey scale  $\geq$  level 3) should not be reported in this inspection. Any defects must be notified to Bentzon Carpets immediately before individual runs are cut. Visible defects might no longer be accepted once the carpet has been cut or fitted.

### **3.1 Processing several rolls**

When fitting several rolls, ensure that the roll labels and the production or batch number on each roll match. If no cutting plan is provided, begin with the smallest roll number and work to the largest roll number. If a cutting plan is provided by the factory, this takes precedence. Each roll must be fitted in the specified order so as to avoid colour deviations at the seams.

## 3.2 Conditioning

In order to ensure perfect fitting, the textile floor coverings and the adhesive to be used must be conditioned for about 48 hours before processing. Ensure a floor temperature of at least + 15 °C and a room temperature of at least + 18 °C at a relative air humidity of no more than 65 %.

## 3.3 Laying out the carpet lengths

In the absence of any specific arrangements, the division of the runs and the direction of fitting of the individual runs are left to the fitter. However, the direction in which carpet runs are fitted must not change within one spatial unit. To avoid any discrepancies later on, it is advisable to co-ordinate the direction of fitting with the site engineer or the owner before fitting. We recommend fitting the carpet in all rooms or levels in one direction only, due to the clearly visible texture of the Alfa, Beta etc. carpet.

## 3.4 Trimming at columns and pillars

Insofar as the room contains columns, pillars and similar, the cut for the respective carpet run must always be made lengthwise. Crosswise cuts sever all pile yarns, which has a permanent negative visual impact.

## 3.5 Trimming run edges of flatwoven

We recommend cutting the run edges separately. Cut approx. 2 – 3 cm precisely and in parallel from the roughly pre-cut edges on the right and left hand side of the length of carpet. Place a roll-up steel straightedge (8 cm wide) precisely along the edge of the strip. For longer carpet runs, we recommend cutting the run edges by overlapping them and double cutting the seam. Once the two carpet runs are precisely overlapped, place a long, sturdy roll-up steel straightedge along the edge to be cut. Here, it is essential that the upper carpet run falls entirely within the overlap area. Double cut the seam with a sharp seam cutter (Stanley knife) along the roll-up steel straightedge. If the initial cut did not completely sever the lower carpet run, cut again along the same line prior to moving the roll-up steel straightedge. Insofar as all the pile-binding fibres are severed, it is possible to cut the textile backing with a sharp hooked blade. Never make the seam cut using only a hooked blade. This could result in fibre filaments being pulled out of the binding. Due to the manufacturing method, always avoid creating head seams on all carpets made of flat-woven fabric. However, if this is unavoidable (e.g. doorways etc.) cut precisely in the area of the lower lying rib or after the binding of the basic fabric as described above.

### Beta Design

Due to the design-forming weave the seam cut must never be made in the pattern area. If the pattern-forming areas are cut inadvertently, this may lead to optically dominating pattern formations.

## 3.6. Folding back and gluing the individual seams

We recommend folding back the carpet along the seams, e.g. to allow each seam to be laid precisely in position (press) and glued. Please take care not to displace the individual lengths.

## 4. Gluing individual runs

A full-surface gluing is recommended. The appropriate adhesive must be chosen according to the back of the carpet, the substrate and the required purpose. Always ensure that high-class "very low emission adhesives", e.g. of class EC 1, which comply with all legal requirements, are used, such as

Mapei Ultrabond Eco 170, Mapei Ultrabond Eco V4 SP, Henkel Thomsit T 410 or Bostik Power Tex.

## 4.1 Applying the adhesive

The quantity of adhesive will depend on the properties of the substrate, the specific weight of the adhesive and the back quality of the floor covering (roughness). For compact felt backing  $\geq$  CF400 backing, it is required to use B2 toothing for applying the adhesive. The adhesive is applied over the full surface by means of a notched spatula. The form of notching is specified by the adhesive manufacturer. When applying the adhesive, make sure that no adhesive accumulates in the indents of the substrate. Depending on the type of adhesive, the carpet can be placed in the adhesive base after application and once the airing time has elapsed (the excess water in the adhesive must escape into the air). Always ensure sufficient glue on the rear of the floor covering. The entire surface of the carpets must be rubbed down after being placed in the adhesive base. Depending on the room conditions, it may be necessary to rub down or roll the entire surface again after about 30 - 45 minutes. Final inspection and any further rubbing down/rolling must take place after approx. 60 minutes.

To avoid indentations, slipping out of position of the pattern and damage of seam edgings, a setting of the glue of at least 24 hours has to be observed. During this period the freshly fitted areas must not be weighted with additional construction work or with furniture, etc.

**Attention! If additional construction work is carried out after fitting, the wall-to-wall carpet must be sufficiently protected from construction soilings, etc. The protection covers should only be applied after setting and once the glue is thoroughly dry. Please be sure that the protection cover is breathable and leaves no glue residues.**

## 5. Fitting recommendations for conductive carpetings

The last few years have seen an increasing number of conductive carpetings being laid without any special conductive fitting. However, we recommend that conductive fitting is carried out as follows.

The substrate to be covered must be inspected and prepared as described above. The entire surface of the fully stopped substrate is primed with a conductive primer after it has dried out.

When this primer has dried, a copper band flag (10 x 0.08 mm) is glued on every 30 m<sup>2</sup> or every 7 m of axis length in the area of the intended earthing point with conductive adhesive. The copper band flag should reach about 1 m into the room and be of sufficient length at the earthing point. Attention: connection should always be executed by an electrician. Further fitting is carried out according to the type of manufacture or pattern of the carpet as described in these recommendations. When carpet runs are glued, of course, a sufficient quantity of conductive adhesive (EC 1) must be used.

## 6. Seam edge fixing

In the case of highly used areas and revision openings, round cuts and seams, etc. a permanent seam edge fixing is necessary. According to DIN 18365 (characteristic properties) this has to be made properly and professionally with a transparent glue. Smearing at the pile of the carpeting has to be avoided.

## 7. Stairways

The suitability for stairs must be ensured already when buying the carpet. The corresponding quality must be chosen according to the expected wear and tear, taking into account the anticipated frequentation. If necessary, a special stair rail (nosing) must be fitted on the edge of the riser. When determining the quantity required, always make sure that the pile direction goes downstairs. The radius of the nosings must be rounded off at least 10 mm.

Because of the large variety of different materials and stair versions, we cannot go into detail here about preparation of the substrate.

The carpet must be matched roughly to the individual steps, i.e. there should be a projection of at least 1 – 2 cm all round. Gluing to the step can be done using a suitable dispersion adhesive of class EC 1. If the carpet has to be led around the nosing, however, dispersion contact adhesive is indispensable in certain cases. The dispersion adhesive is applied to the step in sufficient quantity by means of a notched spatula. After the airing time has elapsed, the floor covering must be laid and then trimmed to the exact dimensions according to the stair contours once the adhesive has set.

If contact adhesives (dispersion-based) are used, the dispersion contact adhesive must be applied in sufficient quantity to both the step itself and the back of the carpet. After the airing time or after the two adhesive surfaces have dried, the carpet is laid and rubbed down. Only then is the carpet adjusted according to the stair contours.

## 8. Cleaning

After fitting, you are obliged to verifiably hand over cleaning and care instructions. Please refer to our current cleaning and maintenance recommendations.

## 9. Special advice

### 9.1 Chair castor suitability

Office chairs must have suitable castors for the use of the respective floor covering. DIN EN 12529 distinguishes between two types. On textile floor coverings, only the use of castors of type H (for hard) is to be envisaged. If unsuitable castors are used, increased signs of wear can be expected. The technical information we provide is limited solely to the suitable chair castor according to the above-mentioned standard.

### 9.2 Limitation of the fitting recommendations

The information provided in these fitting instructions can only be of general nature.

Recourse claims in this respect are excluded.

In case of doubt, we recommend that you perform your own tests and carry out test or trial fittings.