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STAIRCASE CARPET INSTALLATION

TEXTILE FLOORCOVERINGS

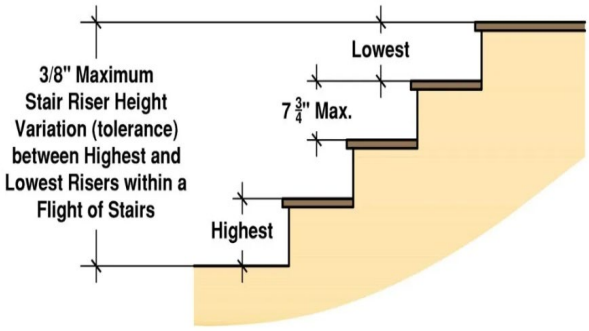
member of the CONDOR group

STAIRCASE CARPET INSTALLATION

Covering stairs with textile floor coverings requires a wide range of specialist knowledge, and not just when it comes to practical implementation. Especially when it comes to staircases in public areas, it is important to follow the requirements of building regulations and guidelines.

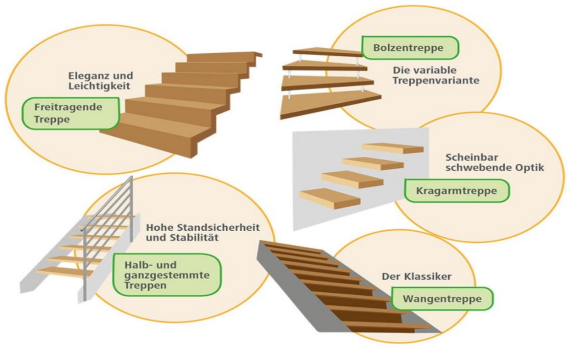
To walk safely on stairs, it is essential to have sufficiently large, level, load-bearing surfaces at even distances that match the step size. The relationship between step length, tread and gradient for stairs is the step size formula: tread + 2 x gradient = 63 cm + 3 cm.

The Step measurement formula when planning stairs can be used in terms of safety following DIN 18065 if steps between 28 cm and 32 cm and gradients between 17 cm and 19 cm are guaranteed. If the stairs have different dimensions for slopes and steps, these differences must be compensated for by structural measures.



Substrate pre-treatment

When laying textile floor coverings in stairs, many different surfaces can form the base, such as classic wooden stairs, reinforced concrete stairs, stairs with a variety of screeds, steel stairs, natural stone stairs, stairs with ceramic tiles, with floor clinker slabs, with Concrete stone, etc. When renovating stairs, subsurface pretreatment is very important. Old layers of paint and varnish as well as floor wax as well as old adhesive and filler residues must be completely removed. There have already been numerous cases of damage here. If these layers are not removed, fillers and floor coverings can detach from the surface, or the color of the floor coverings can change. All cleaning and care products must also be completely removed. Steel stairs must be cleaned “metallically”, i.e., dirt and rust must be removed mechanically, and all release agents (oils, grease, etc.) must be removed with a synthetic resin thinner.



- Basically, the primers and fillers must be tailored to the respective substrates. Dispersion primers are usually used on wooden stairs and mineral substrates. However, for particularly critical substrates, reactive resin primers may also be necessary. The choice of filler depends primarily on the surface, the size of the unevenness, the type of surface covering and the use and load on the stairs.
- When it comes to fillers, so-called renovation leveling compounds or fine repair fillers are usually used. For reasons of workability and faster curing times, stable fillers are used on steps and risers. Larger unevenness can be leveled out with suitable dry screeds that are glued or screwed to the subsurface.
- Heavily worn steps not only affect the overall visual impression of a staircase, they can also pose a significant risk of accidents. Here it has proven useful to install a suitable metal profile on the edge of the step, which is incorporated into a filler. This increases the stability of the highly stressed stair edge and achieves a straight edge. The metal profile must be fully incorporated into the filler over its entire length to prevent hollow spots. Hollow spots in the filler in particular cause detachments and damage to the renovated stairs.

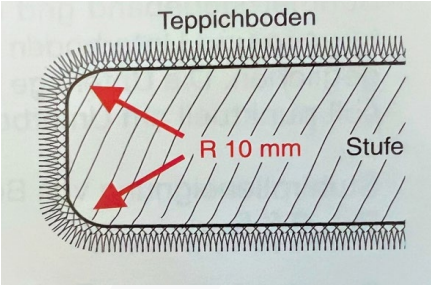
- Before laying floor coverings on stairs with broken or defective stair edges, suitable metal/steel stair brackets must also be attached to the stair edges before filling work. These stair angles can be covered directly with the floor covering after filling work. These stair angles are usually screwed onto wooden stairs. For stone stairs, these stair angles are usually glued on with a reaction resin. To prevent the stair angles from slipping, the stair angles must be fixed in the stone stairs with countersunk screws until the reaction resin has hardened. These stair angles give the stair edges the necessary stability, as it is precisely the stair edges that are exposed to the most extreme loads. For example: users' walking habits, transporting furniture and equipment over the edges of stairs, etc.

  If, for example, the chippings in the edges of the stairs were only repaired with cement-based products, these repairs would break out again after some time, as experience has shown repeatedly. Both the adhesion of these repairs to the subsurface in the break-out areas and their internal strength are not sufficient to withstand the loads in the stair edges without causing damage. Repairs with reaction resin products can also be problematic. Stair angles made of metal or steel always offer the greatest safety.

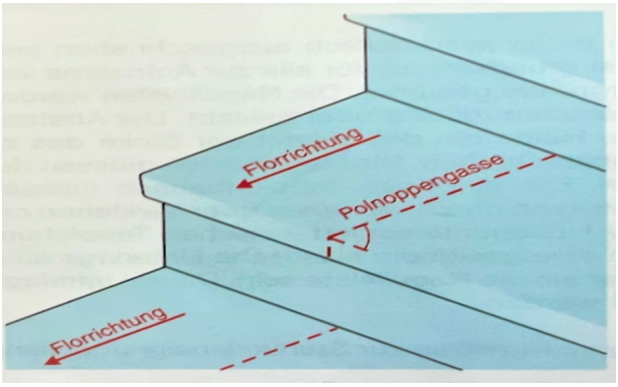
General information on laying textile floor coverings on stairs

Textile floor coverings that are laid on stairs must always be suitable for stairs. This means, for example, that the edges of the stairs are not subject to significantly greater changes or wear than the other surfaces. The laying of floor coverings must be mentioned separately in the list of services. The list must record the type of material of the stairs, the shape of the stairs, the execution of the assembly, the transitions to the landings, the stair angles to be attached, the stair edges, the edge radius and the type of fastening of services. Information on sizes, individual dimensions and the number of steps and risers, platforms and side walls are also needed. Textile floor coverings are predominantly glued to stairs using the contact process. The era of neoprene contact adhesives for stairs is slowly ending. These adhesives are being replaced by dispersion contact adhesives, which are offered by all well-known installation material manufacturers and have excellent technical properties. For all types of adhesives and their use, the instructions and explanations must be requested in advance from the adhesives manufacturer and must be seen and adhered to.

The following general principles apply when laying:



Each stairstep is different and needs unique installation. A matching pile direction cannot be installed. Color deviations are to be viewed as product-typical features that must be accepted by the client. The step edges must not have sharp edges, otherwise, the textile floor covering in the edge area will quickly wear out. The edges of the stairs must be rounded if the carpet is to be pulled over the edges. According to VOB 18365 and TKB leaflet 13, the stair edges must have a radius of at least 10 mm. A rounded edge also makes installation easier as the covering can be pulled around the edge more easily. The pattern of woven and tufted flooring must be parallel to the stair edge. For woven and tufted carpets, the rows of tufting on the wear layer must run at right angles to the front edge. Otherwise, if you go around the edge of the step, it can loosen up. When laying cut pile carpets, the pile direction of the carpets should be directed downwards. This extends the durability of the carpet as the pile at the front edge of the step is compacted, especially when going down. Angle measures with movable measuring rulers are particularly suitable for transferring step contours, especially on rounded steps and spiral staircases. Needle felt coverings without a directional pattern and with a directional arrow on the back must be cut to size so that there is as little waste as possible.



10 points for installing textile floorcovering on stairs.

1. Evaluating the substrate according to VOB DIN 18365.
2. When repairing the steps, make sure that the gradient of the respective steps is not changed.
3. Stair edge radius > 10 mm.
4. Choose a carpet that is suitable for stairs and has high durability.
5. A suitable insulation base is useful, but not necessary.
6. With cut pile (velours), pay attention to the laying direction/running direction from top to bottom.
7. With loop pile, the pile should always run perpendicular to the edge of the stairs.
8. For the planned material combination only use approved installation materials.
9. Depending on the type of use, stair-nosing profiles can increase safety.
10. Instruct end-user to perform regular cleaning and maintenance.

QUESTIONS?

CONTACT US

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