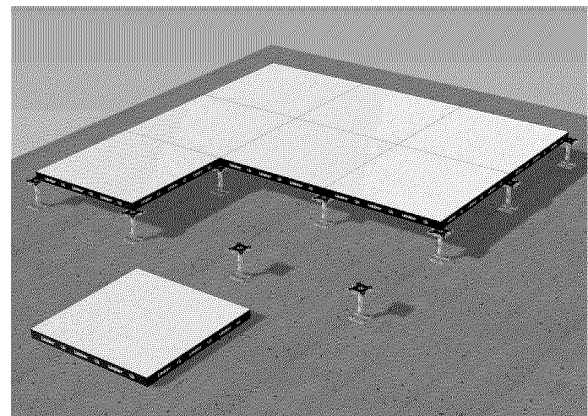


Technical Information

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DLW floor coverings for raised floors

A raised floor construction consists of numerous single slabs, not connected to each other, in a 60 cm x 60 cm standard raster, which are placed on an adjustable-height stand system. The hollow space below can accept various types of installations (electrics, computer, heating, ventilation, and air-conditioning). The advantages of a raised floor system lie in its great variability and in the possibility of accessing and modifying all elements of the installation lying underneath at any time. To use these advantages of raised floors to the full, the characteristics of the floor covering must be matched to the requirements of the particular commercial property, and the lifespan of the floor covering must economically justify the use of the raised floor.



Example illustrations

The respective European product norms for resilient and textile floor coverings define requirements on floor coverings and their classification into usage classes depending on their wear characteristics and retention of looks.

Technical requirements

The general criteria that a floor covering for a raised floor must fulfil are:

- Wear resistance
- Dimensional stability
- Antistatic characteristics
- Colour consistency

Detailed information on the requirements is contained in the german Handbook on System Floors conforming to DIN EN 12825 issued by the german National System Flooring Association (Bundesverband Systemböden e.V.).

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Requirements above and beyond this are exclusively defined from the planned project / building and its use. They must always be formulated by the user or client. For example, the following additional characteristics may be required for the floor covering:

- Conductivity
- Insulation
- Sound absorption
- Castor chair

Wear resistance

Depending on the intensity of room usage, floor coverings – regardless of the type – must be used that conform to the required classification, in order to ensure an economically viable lifespan.

Dimensional stability

Floor coverings suitable for raised floors are produced in the standard formats of 60.8 cm x 60.8 cm and 61.0 cm x 61.0 cm such that they exhibit the required dimensional stability. The supplied pre-cut parts are applied to the actual raised floor slabs (generally 60 cm x 60 cm) by the manufacturer of the raised floor.

Antistatic characteristics

Floor coverings for raised floors must be antistatic. This means that electrostatic Body-voltage must remain below 2 kV, under the noticeable and limiting value.

Conductivity

Conductivity requirements for raised floors are based to a certain extent on the requirements of manufacturers of electronic equipment. A floor covering is conductive when it does not exceed the following limiting value:

- Fibrebonded floor coverings: $R_{EF} \leq 10^9$ Ohm, measured according to ISO 10965
- Resilient floor coverings: $R_1 \leq 10^9$ Ohm, measured according to EN 1081

Users and equipment manufacturers often require lower resistance values. Such equipment manufacturer requirements exist for:

- Computing centres
- Radio transmitting stations
- The assembly, production, repair and maintenance areas for electronic and electrical equipment.

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The floor covering must at least fulfil the requirement for conductivity and be laid professionally on the conductive raised floor. Since there are various types of conductive raised floors, the raised floor manufacturer should always be consulted.

Insulation

Electrical insulation to ground according to VDE 0100 serves to protect humans when there is a danger of personnel coming into contact with mains voltage.

Permanently effective insulation to VDE 0100 can only be achieved with resilient floor coverings.

Sound Absorption

Sound energy can be reduced in the room that originates it by using fibrebonded floor coverings. In large floor area offices in which conversations and telephone calls can lead to a raised sound level, the working environment can be considerably improved by using fibrebonded floor coverings.

In contrast, resilient floor coverings completely reflect the sound waves – Sound absorption therefore falls into the domain of textiles and thus fibrebonded floor coverings.

As a traditional manufacturer of floor coverings for commercial and industrial properties, Armstrong DLW has offered floor coverings suitable for use on raised floors for many years.

The following Armstrong DLW floor coverings are suitable for laying on raised floors:

- all homogeneous PVC floor coverings (EN 649) from the Vinyl Collection
from conductive range only Royal conductive / LG2 and Royal ESD / LG1 are suitable
- all linoleum floor coverings (EN 548), except for Marmorette Acoustic
- all fibrebonded floor coverings (EN 1470), except for M 733