

Drum test device Type KSG
DIN EN 1814 / ISO 10361 /
DIN 54323

Purpose and area of application

DIN ISO 10361

The test in accordance with this standard is used to give an indication of the changes which occur to the upper surface of the textile flooring as a result of mechanical stress caused by walking. The test procedure is applicable to all textile floor coverings in accordance with DIN 61151.

Brief description of the procedure

A steel ball with rubber buffers rolls about uncontrolled in a rotating drum and strains the samples, which have their useful surface upwards and which are fixed to the inside of the drum. After the stress test, the change in the appearance of the sample is assessed.

Device

The device consists of a drum containing an internal suction device, a freely moving ball with fixed rubber buffers and a drive to rotate the drum.



Drum

The drum consists of a cylinder-shaped housing made of metal with a connected rigid closed side wall which contains the pivot bearing and ringshaped side wall through which the drum is loaded. In the drum, holding pieces are mounted to allow the fixing of samples. Inside the drum shell, a vulcanized fibre mat (approx. 1.5 mm thick) whose size corresponds to the width and circumference of the drum is loosely laid inside from the loading side and remains permanently inside the drum.

The drum rests on top of a horizontally mounted rotating axis. It is driven with an adjustable drive mechanism. The change in the sense of rotation is

controlled using an adjustable reversind switch. The number of revolutions is set by means of a counter. A circular brush mounted within the drum brushes away the loose looped fibre material on the upper surface of the sample. The fibres which are brushed loose are continuously sucked away by the suction device.

Dimensions of the drum

Inner diameter: 730 ± 10 mm
Inner width: 270 ± 5 mm
Diameter of the side wall opening: 530 ± 5 mm
Thickness of the shell: 8 ± 0.5 mm
Thickness of the holding pieces: 15 ± 1 mm

Ball parts 1 and 2

Part 1:

The ball consists of soft bearing steel in acc. with DIN 5401, Class III, surface polished with 14 centred tapped holes of M 8 x 25 mm symmetrically distributed over the surface of the ball.

On the tapped holes, the ball is flattened so that the distance between two opposite-lying surfaces is 118 ± 0.1 mm.

The weight of ball without the rubber parts is 6800 ± 100 g.

14 rubber buffers are screwed onto the ball. The weight of the ball with rubber buffers is 7600 ± 1000 g.

Part 2:

As above, except with 6 rubber buffers.

Rubber buffers

A rubber overlay with a thickness of 12 mm is

fixed to a 3 mm thick metal plate.

non-screwed height: 15 ± 0.5 mm

diameter: 39 ± 0.5 mm

colour: bright grey

rubber mixture

Shore a hardness

acc. to DIN 53505: 48 ± 3

Rebound elasticity on the finished parts based on DIN 53512

in %: 68 ± 5

Density acc. to

DIN 53479 in g/cm^3 : 1.22 ± 0.03

abrasion acc. DIN 53516

with 1 kg stress in mm^3 : 260 ± 40

abrasion: non smearing

threads: M 8 x 20 mm

Suction device:

1 vacuum cleaner, 1200-1600 Watt.
integrated interval circuit.

Switch boxes

Sheet steel casing with operating elements

integrated on the door at the front.

Finish

2K – PUR RAL 7035

Dimensions:

Base: 110 x 110 cm

Height 120 cm, Weight approx. 340

kg

Connection:

1 x 230 V, 50/60 Hz N + PE 1,4 kW

Subject to alternation due to technological advance.