

Types of Use

The requirements on constructional sound insulation of door sets consisting of door blank, frame and sealings are classified into different types of use according to **DIN 4109** (German Standard).

Measurement of the sound insulation level

The sound insulation tests are performed in test facilities which are free of leakage, i. e. the sound is only transmitted by the door and not by other elements as walls, ceilings or gaps.

The result is taken according to German Standard **DIN 52210** in R_w = 'sound insulation level in dB without sound transmission by flanking building components'.

Lead level

The sound insulation level measured on doors in the lab must be 5 dB higher (lead level) than the values required from the different applications in buildings.

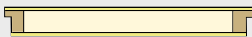
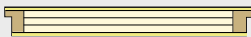
Classification according to VDI 3728

The classification into sound insulation classes is made following **VDI 3728** (Guide Lines of the Association of German Engineers).

Test of the door sealed into the test stand

The test of the door sealed into the test stand is not of importance for the customer, but it provides important information for the manufacturer regarding the characteristics of the door blank and the influences of frame, fitting and sealings.

Therefore this additional test is recommended.

Sound Insulation Class acc. German	SK I	SK II	SK III
Requirements DIN 4109	27 dB	32 dB	37 dB
Lab Test incl. 5dB lead level	32 dB	37 dB	42 dB
Recommended Use flat entrances offices - conference rooms school rooms hospitals - consulting-/ parlour rooms hotel rooms	○ ○ ○ ○ ○	○ ○ ○ ○	○ ○
Possible Cores	Solid Board 2-Layer Solid Board 	3-Layer Solid Board 	Multi-Layer Solid Board 