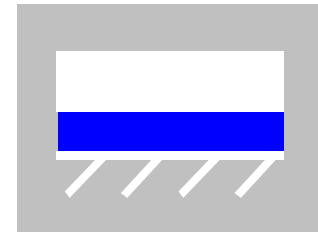


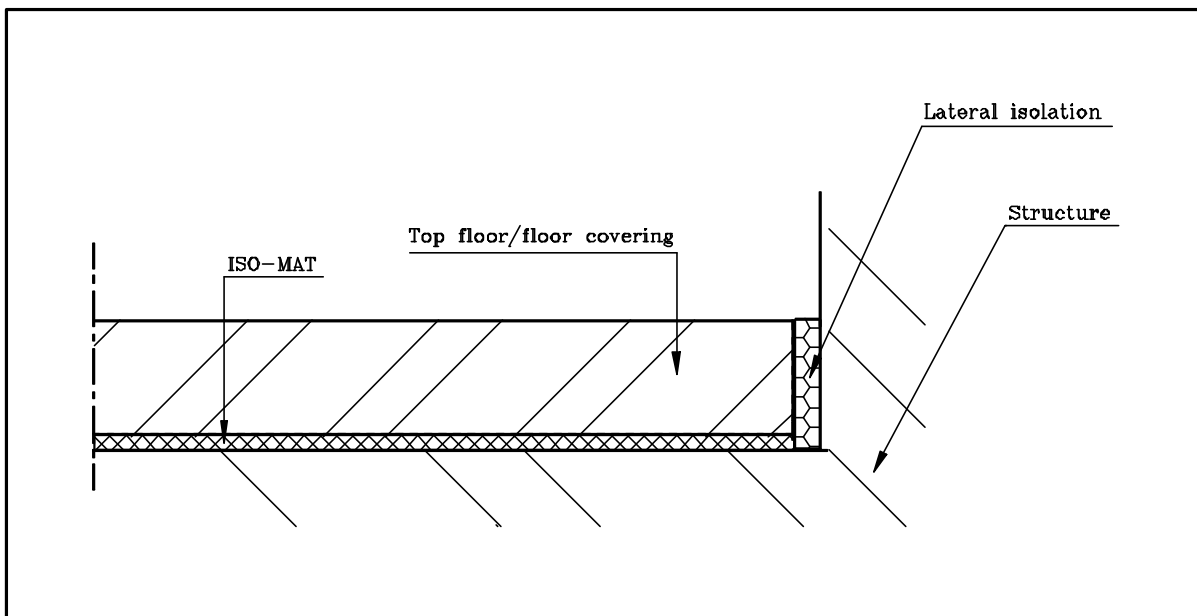
2.3 ACOUSTIC FLOOR LAYER



CDM-ISO-MAT

1. APPLICATIONS

The **CDM-ISO-MAT** system is a thin cork layer that is installed either directly under the floor covering, either under a top floor. This layer reduces the transmission of impact noise in the building structure considerably.



2. CDM PRODUCTS AND SYSTEMS

The **CDM-ISO-MAT** layers are available in variable thicknesses and material classes, depending on the static and dynamic loads and on the desired degree of isolation.

	ISO-MAT	Thickness	kd [MN/m ³]
Underlay (tiles)	CDM-CR-15003	3 mm	1100
	CDM-CR-15005	5 mm	700
	CDM-CC-25003	3 mm	2500
	CDM-CC-25005	5 mm	1500
	CDM-CC-25008	8 mm	950
Dry lightweight floor	CDM-MF-05005	5 mm	80
	CDM-MF-05010	10 mm	40
	CDM-RR-43005	5 mm	280
	CDM-RR-43010	10 mm	140
Wet screed floor	CDM-RR-43010/5	10 mm (wavy surface)	70
	CDM-RR-430014/6	14 mm (wavy surface)	60
	CDM-RR-43017/9	17 mm (wavy surface)	50
	CDM-RR-43020/10	20 mm (wavy surface)	30



3. PERFORMANCES

The performance of the **CDM-ISO-MAT** system depends on the load, the impedances of the (concrete) floor elements and the type of ISO-MAT used. As an indication the following isolation improvements can be obtained (between 100 and 500 Hz), when compared to the non-isolated case:

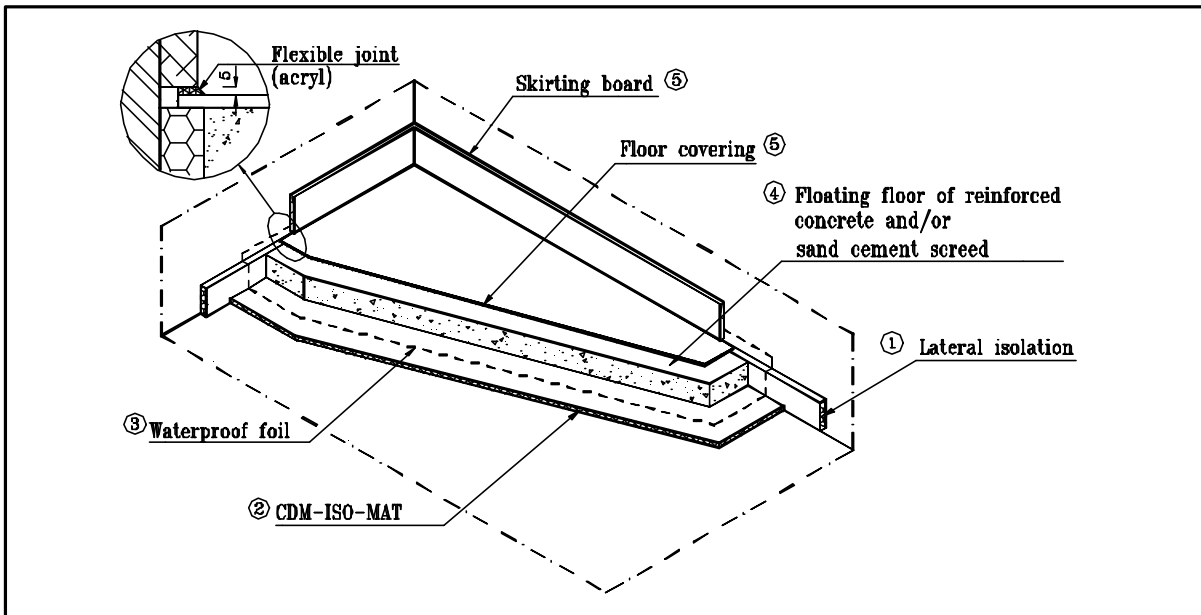
ISO-MAT	Impact noise: DL_n	Airborne noise: DR_w
3 mm	8 - 10 dB	6-10 dB
5 mm	12 - 15 dB	8-12 dB
10 mm	16 - 20 dB	11-15 dB

These values are given in case of a concrete slab on top with a thickness ranging from 60 to 120 mm. CDM-25 can be used directly under the floor covering, achieving an impact noise level reduction up to 8 dB.

4. INSTALLATION

Mounting principles:

1. Installation of lateral isolation.
2. Installation of **CDM-ISO-MAT**.
3. Installation of waterproof foil. Cover the lateral isolation with an overlap.
4. Installation of reinforced concrete and/or sand cement screed.
5. Finishing: floor covering + plinth (skirting board). The floating floor must have no contact with the structure.



Some recommendations:

- When considering dynamic impacts, it is of most importance that a maximum of (suspended) mass is brought into movement and that both, the supporting floor and the suspended floor, have a global structural stiffness greater than if no vibration isolation was installed.
- Avoid all stiff contacts between the floating floor and the structural floor. Special interest should therefore be paid to the perimeter of the floor, structural columns, and ducting facilities.
- Watertight lateral joints can be installed once the floating floor is finished.
- No maintenance required after installation. If no concrete slab was poured on top, the layer can easily be removed or changed.

