Heraklith-Damtec-Floor System for Optimum Protection against Impact Sound

Technical information

KRAIBURG RELASTEC

Heraklith®
Insulation Systems

System Structure for Concrete Floor

General

People's requirements for quiet and relaxed sleep demand outstanding impact and airborne sound insulation, because noise can make you sick. Specifically in the low frequency ranges from 63 to 200 Hz, conventional impact sound insulation systems have major weaknesses.
The Heraklith-Damtec system is a joint development by the companies Heraklith AG and Gummiwerk KRAIBURG RELASTEC GmbH in conjunction with the Technical University of Aachen.
This floor system, consisting of a magnesite bound wood wool panel and two Damtec System granulate strips, **provides optimum sound absorption properties** besides the usual impact sound insulation.
The so-called “anti-droning effect” shows immediate effect. Besides the outstanding impact sound insulation values, it is also convincing due to the low construction height.
High design security and the prevention of bothersome resonance frequencies are an equal part of the technical system properties.

System benefits:

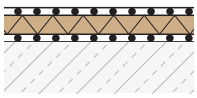
- outstanding impact and airborne sound insulation values
- low construction height
- smoothing machine compatible
- not sensitive to moisture
- easy to install
- highly durable
- unique in this sector

Heraklith-M

Magnesite bound wood wool panel in accordance with DIN EN 13168, abbreviation according to DIN V 4108-10 DI-dm, WI-dm

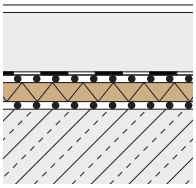
Damtec-System granulate strip from KRAIBURG RELASTEC

System Components

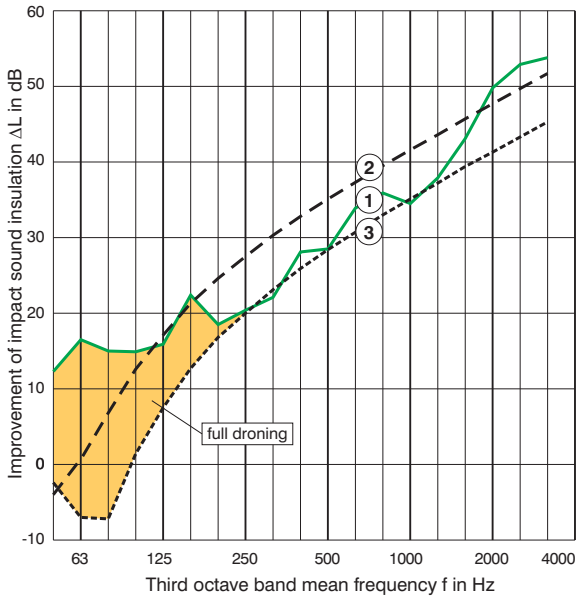
	Structure	Thickness mm	Thermal Resistance R m²K/W	Requirements for 1 m² installed surface *
	Damtec-System granulate layer	6	0,07	1,00 m² **
	Heraklith-M wood wool panel	15	0,17	1,00 m²
	Damtec-System granulate layer	6	0,07	1,00 m²

* without cutting losses or other losses
** in addition, the requirements for pulling up a strip at the wall connection must be taken into consideration

Impact sound Improvement Level

Curve No.	Drawing/Cross-section	Structure/Characteristics (from top to bottom)
1		Floor covering 5 mm Cement screed 40 mm PE film 0.2 mm Damtec-System 6 mm Heraklith-M 15 mm Damtec-System 6 mm Concrete slap usually 180 mm Interior plaster 10 mm
Impact sound improvement level ΔL_w = VM = 36 dB *		
2	Standard construction with mineral wool impact sound insulation panels 20 mm**	
3	Standard construction with expanded polystyrene impact sound insulation panels 20 mm**	

* measurement at test bench
** calculated impact sound improvement level



System Structure for Timber floor (old building)

General

Especially in wood constructions, equal structures can only be realised with a great deal of effort. The concrete panels or wet screed that come into question for this also contradict the philosophy of wood construction.
Outstanding impact and airborne sound values can be achieved in an easy way in combination with the dry screed element Heraklith-Floor (registered for industrial property rights). The benefit of the low construction heights is important, both for new buildings as well as for existing ones.
For noise-related renovation of old buildings, this floor system results in a total structure that is barely higher than the original. Here, the Heraklith-Damtec floor system is applied directly on the intermediate floor.

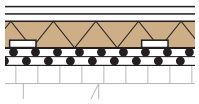
System benefits:

- outstanding impact and airborne sound insulation values
- low construction height (also in old buildings)
- low cut loss
- easy to install
- que in this sector
- no additional moisture insertion

Heraklith Floor
Composite element made of cement-bound wood wool panel in accordance with DIN EN 13168, upper side glued to a fibre reinforced gypsum panel.

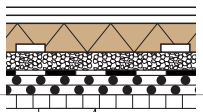
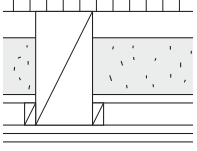
Damtec-System granulate strip from KRAIBURG RELASTEC

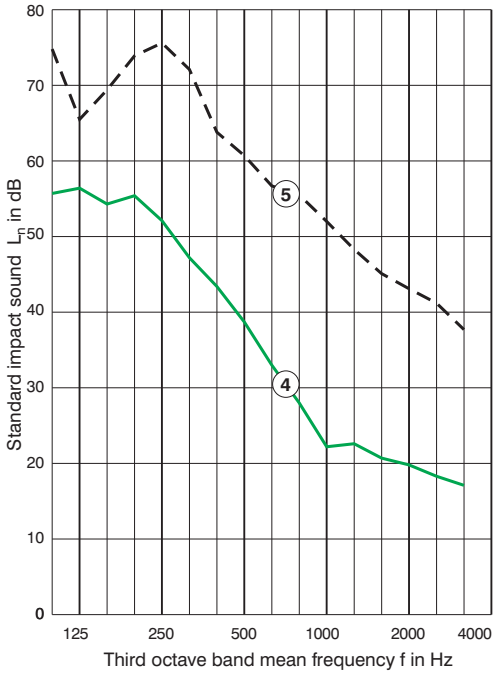
System Components

	Structure	Thickness mm	Thermal Resistance R m²K/W	Requirements for 1 m² installed surface *
	Heraklith-Floor® (dry screed element)	45	0,40	1,00 m²
	Damtec-System granulate layer	2 x 6	0,14	1,00 m² **

* without cutting losses or other losses
** in addition, the requirements for pulling up a strip at the wall connection must be taken into consideration

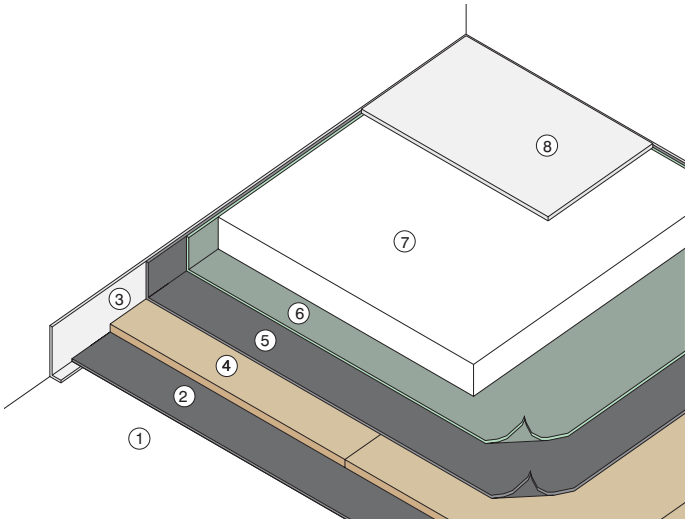
Impact Sound Improvement Level

Curve No.	Drawing/Cross-section	Structure/Characteristics (from top to bottom)
4		**Renovation Structure** Fibre reinforcement gipsum panel 10 mm Heraklith-Floor® 45 mm Evening out (expanded clay) 15 mm PE-film 0,2 mm Damtec-System 6 mm Damtec-System 6 mm
5		**Existing** Formwork 24 mm Airspace 55 mm Clay packing 80 mm Formwork 15 mm Laths / air 50 mm Plaster on plaster substrate 25 mm
Weighted standard impact sound noise level L'_{nw} nach DIN 4109:		
Existing		**65 dB**
after Renovation		**46 dB** (construction site measurement)
Weighted impact sound improvement index ΔL_w19 dB		



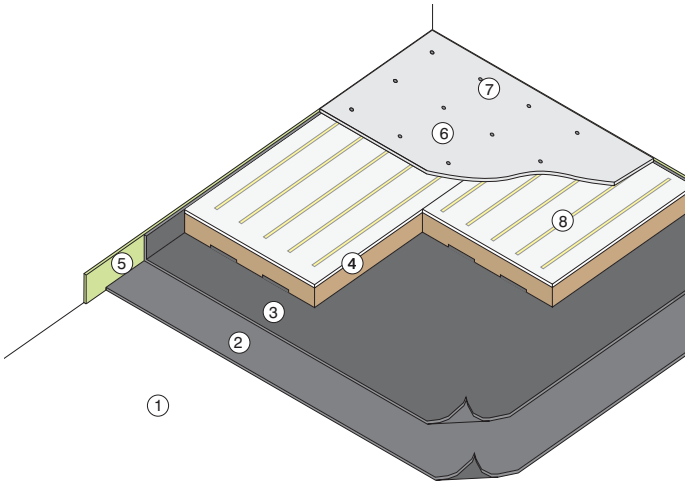
Heraklith-Damtec-Floor System

System structure for concrete floor



1. *Concrete slap*
2. *Damtec-System from KRAIBURG RELASTEC*
3. *Edge strips*
4. *Heraklith-M*
5. *Damtec-System KRAIBURG RELASTEC*
6. *PE film*
7. *Wet screed possibly with coating*
8. *Floor covering*

System structure for timber floor



1. *Wooden beams / formwork*
2. *Damtec-System KRAIBURG RELASTEC*
3. *Damtec-System KRAIBURG RELASTEC*
   Leveling out layer as needed
4. *Heraklith-Floor*
5. *Edge strips*
6. *Fibre reinforced gypsum panel*
7. *Dry-wall screw*
8. *Glue*

Please observe our installation guide lines!

Building Construction Business Unit
Insulation Systems

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TÜV CERT EN ISO 9001

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