

Product characteristics

- Highly loadable planking with A1 material, non-combustible
- Floor can be pressurised for ventilation
- Quick installation thanks to high degree of pre-fabrication
- Substructure and planking from own production



schematic representation

System description

The dry hollow floor system KNAUF GifaFloor® arena complies to all project-specific requirements to tiered level constructions. The hollow floor panels consist of fibre-reinforced calcium sulphate. The elements are pre-manufactured acc. to the design geometry. The gluing of the KNAUF GifaFloor® panels is made with a special tongue and grooving at the edges of the panels which are forming a closed load bearing layer. The substructure consists of height-adjustable zinc-coated steel pedestals from our own production and in the factory prefabricated steel profiles which are installed on the construction site which can also be mounted on a sloped and stepped subfloor.



Technical data

Panel thickness	25 mm
System weight	approx. 70 kg/m ²
Pedestal height	200 - 2000 mm
Standard step depth	800 - 1200 mm



Distributed load

DIN 1055	3 kN/m ²
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Reaction to fire performance of the carrier panel

DIN 4102-1	A2 (non-combustible)
EN 13501-1	A1 (non-combustible)



Earth quake safety

International Building Code (IBC)	available in A - F
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Green Building

The floor system can contribute positively to national and international building certifications

Areas of application

- Theatres
- Cinemas
- Concert halls and auditoriums
- Auditoriums
- Training rooms

Suitability of coverings

- Elastic coverings
- Textile coverings
- Parquet

Informations on Knauf AG



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Allowable bearing capacities (working loads) for sheet-panneled access floors single-layer F181 ¹⁾ (acc. to EN 13213)														
Floor	FHB 19 ²⁾	FHB 22 ²⁾	FHB 25	FHB 25	FHB 25	FHB 28	FHB 28	FHB 28	FHB 32	FHB 32	FHB 32	FHB 38	FHB 38	FHB 38
Grid system [mm]	600x600	600x600	600x600	600x600	300x300	425x425	425x425	425x425	600x600	600x600	425x425	300x300	600x600	425x425
Working load [kN] ³⁾	1.0	2.0	3.0	4.0	4.5	4.0	4.0	4.0	5.0	5.0	6.0	6.0	6.0 ⁵⁾	7.0
Load class ⁴⁾	none	1	2	3	4	3	3	3	5	5	6	6	6 ⁵⁾	6
Deflection while load initiating with a stamp 25x25mm for sheet-panneled access floors single-layer F181														
Load [kN]	1	n/a	0.8	0.6	0.4	0.7 ⁶⁾	0.5	0.4	0.6 ⁶⁾	0.4	0.4	0.3	0.4	0.2
	2	n/a	1.3	1.1	0.8	1.2	1.0	0.7	1.0 ⁶⁾	0.9	0.9	0.6	0.8	0.6
	3		1.8	1.5	1.2	1.5	1.3	1.1	1.4	1.2	1.2	0.9	1.1	0.8
	4			2.0	1.5	1.8	1.8	1.4	1.7	1.5	1.5	1.2	1.5	1.1
	4.5				1.8			1.6	1.8	1.6	1.6	1.3	1.6	1.2
	5								2.0	1.8	1.8	1.4	1.8	1.4
	6									2.0	2.0	1.6	2.3 ⁵⁾	1.7
	7													2.0
Allowable bearing capacities (working loads) for sheet-panneled access floors double-layer F182 ¹⁾ (acc. to EN 13213)														
Floor	FHBplus	FHBplus	FHBplus	FHBplus	FHBplus	FHBplus	FHBplus	FHBplus	FHBplus	FHBplus	FHBplus	FHBplus	FHBplus	DLH
Grid system [mm]	25+13	25+13	25+18	28+13	28+13	28+13	28+18	28+18	32+13	32+13	32+13	32+18	38+38	25+13
Working load [kN] ³⁾	4.5	5.0	4.5	5.0	5.0	6.0	6.0	6.0	6.0	7.0	6.0	9.0	12.5	600x600
Load class ⁴⁾	4	5	4	5	5	6	6	6	6	6	6	6	6	2
Deflection while load initiating with a stamp 25x25mm for sheet-panneled access floors double-layer F182														
Load [kN]	1	0.7	0.5	0.6 ⁶⁾	0.4 ⁶⁾	0.6 ⁶⁾	0.5 ⁶⁾	0.4 ⁶⁾	0.5	0.3	0.2	0.3	0.3	0.7
	2	1.2	1.0	1.1 ⁶⁾	0.9 ⁶⁾	1.1 ⁶⁾	1.0 ⁶⁾	0.8 ⁶⁾	0.9	0.8	0.3	0.5	0.5	1.2
	3	1.5	1.3	1.4 ⁶⁾	1.2 ⁶⁾	1.4 ⁶⁾	1.3 ⁶⁾	1.1 ⁶⁾	1.3	1.1	0.5	0.7	0.7	1.4
	4	1.8	1.6	1.7 ⁶⁾	1.5 ⁶⁾	1.7 ⁶⁾	1.6 ⁶⁾	1.4 ⁶⁾	1.6	1.4	0.6	0.9	0.9	1.8
	4.5	1.9	1.8	1.8 ⁶⁾	1.7 ⁶⁾	1.8 ⁶⁾	1.7 ⁶⁾	1.6 ⁶⁾	1.7	1.5	0.7	1.0	1.0	
	5		1.9	1.9 ⁶⁾	1.9 ⁶⁾	2.0 ⁶⁾	1.9 ⁶⁾	1.8 ⁶⁾	1.9	1.7	0.8	1.0	1.0	
	6				2.0 ⁶⁾	2.0 ⁶⁾	2.0 ⁶⁾	2.0 ⁶⁾	2.0	1.9	1.0	1.1	1.1	
	7								1.5	2.0	1.2	1.2	1.2	
	8								1.7	1.4	1.4	1.4	1.4	
	9								1.9	1.6	1.6	1.5	1.5	
	10									1.9	1.9	1.6	1.6	
	11											1.8	1.8	
	12											1.9	1.9	
	12.5											2.0	2.0	
The load bearing capacity of the tested double-layer systems is mainly affected by the thickness of the lower bearing panel. Reducing the thickness of the lower panel reduces the load bearing capacity of the complete system, even the total thickness of the system is equal. If the upper panels are weakened by milling (e.g. for heating pipes).														
The load bearing capacity of the lower panel is equal to the load bearing capacity of the single-layer system F181 with adequate panel thickness.														
If the lower panel is milled the thickness below the milling solely has to be estimated.														
Supports, fillings / self levelling full area mastic compound coatings and floor finishings have to be designed for the specific loads.														
Special kind of supports for fire protection from bottom side are required.														
Further heavy load floors on request.														
Because of the particular requirements to the floor finishing the deflection is not specified														

¹⁾ The grid system 425x425mm is generated by additional supports put in the middle of the standardized grid 600x600mm ²⁾ Special thickness available on request

³⁾ (= ultimate load / safety factor 2) ⁴⁾ acc. EN 13213 ⁵⁾ only according breaking load criterion ⁶⁾ values interpolated