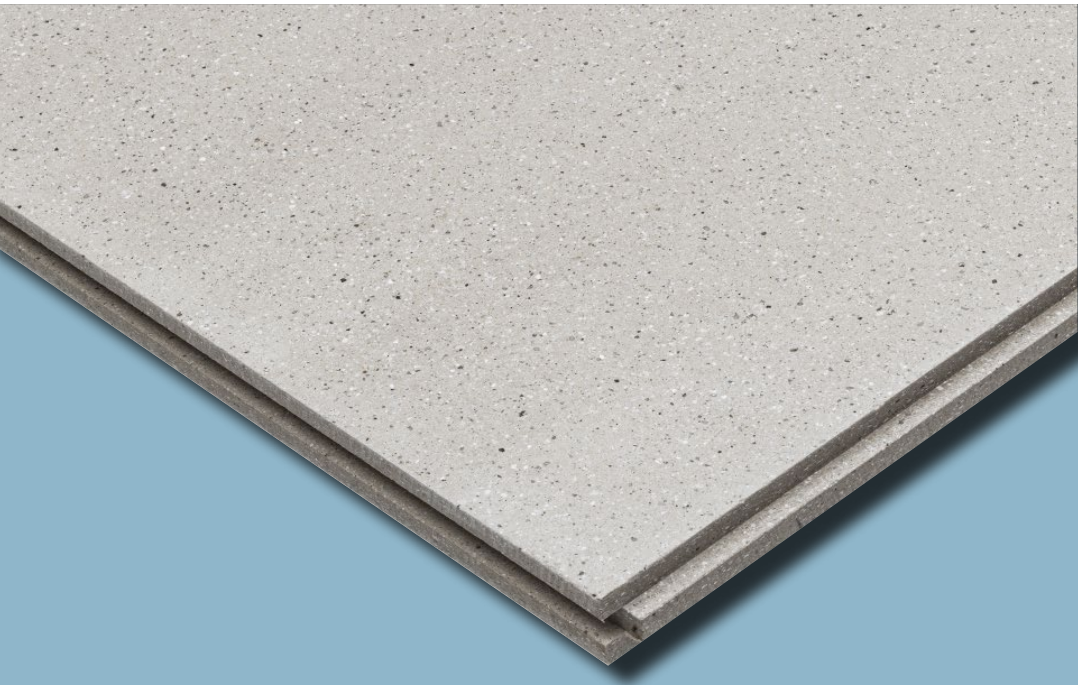

GIFAtec

K841.de

Technical sheet 04/2023

# GIFAfloor FHB elements

Gypsum fibre elements for hollow floor systems

## Product description

GIFAfloor FHB elements are surface-primed gypsum fibreboards with tongue-and-groove edges.
All top coverings can be easily applied or laid.

### Storage

GIFAfloor FHB elements must be stored flat, dry and protected from the weather.

### Quality

The product is subject to continuous factory production control.

## Properties and added value

- Non-combustible
- Suitable for indoor use according to AgBB scheme. (Eurofins certificate)
- Building biology recommended (IBR award certificate)
- High strength
- High load-bearing capacity
- High dimensional stability
- Easy to lay and quick to walk on

# K841.de GIFAfloor FHB elements

## Gypsum fibre elements for hollow floor systems

### Note on use

This document contains information that applies exclusively to the GIFAfloor FHB elements manufactured according to EN 15283-2.

### References to other documents

- F18.de Knauf GIFAfloor hollow floor
- F19.de Knauf GIFAfloor self supporting systems

### Machining and further processing

GIFAfloor FHB elements can be machined with the usual machine tools and with the usual machine tools and tools for wood-based material processing.

### Product range

| Description | Width mm | Length mm | Thickness mm | Packaging Unit Pieces/Pallet | Packaging Unit Weight [kg] / Pallet | Article number | EAN |
|---|---|---|---|---|---|---|---|
| GIFAfloor FHB 25 | 600 | 1200 | 25 | 35 | 1,027 | 31256 | 4003982182814 |
| | | 600 | | 70 | | 63565 | 4003982257055 |
| GIFAfloor FHB 28 | | 1200 | 28 | 30 | 986 | 31545 | 4003982207449 |
| | | 600 | | 60 | | 50980 | 4003982257062 |
| GIFAfloor FHB 32 | | 1200 | 32 | 25 | 940 | 31326 | 4003982157621 |
| | | 600 | | 50 | | 31559 | 4003982257079 |
| GIFAfloor FHB 38 | | 1200 | 38 | 20 | 893 | 88635 | 4003982207456 |
| | | 600 | | 40 | | 88636 | 4003982257093 |

### Technical data

| Properties | Value | Unit | Standard |
|---|---|---|---|
| Reaction to fire | A1 (non-combustible) | – | EN 13501-1 |
| Edge shape | Tongue and groove | – | – |
| Dimensional tolerance width | +0.5 / -0.5 | mm | EN 15283-2 |
| Dimensional tolerance length | +0.5 / -0.5 | mm | EN 15283-2 |
| Dimensional tolerance thickness | +0.2 / -0.2 | mm | EN 15283-2 |
| Density | ≥ 1500 | $kg/m^3$ | EN 15283-2 |
| Surface hardness (Brinell) | ≥ 40 | $N/mm^2$ | Internal specification |
| Adhesive tensile strength | ≥ 1.0 | $N/mm^2$ | EN 13892-8 |
| Electrostatic resistance | $\geq 1 \cdot 10^7$ | Ω | EN 1081 |
| Specific heat capacity c | > 1000 | J/(kg·K) | – |
| Calculated value of thermal conductivity $\lambda_R$ | 0.44 | W/(mK) | Internal specification |
| For the design of underfloor heating systems $\lambda_{10}$ | 0.30 | W/(mK) | Internal specification |
| Coefficient of thermal expansion α | $12.9 \cdot 10^{-6}$ | 1/K | – |
| Change in length with temperature change | ≤ 0.02 | mm/(m·K) | Internal specification |
| Change in length with change in rel. humidity by 30 % at 20 °C | ≤ 0.6 | mm/m | Internal specification |
| Hygrothermal conditions of installation (stationary) | +10 °C to +35 °C<br>approx. 45 – 75 % rel. humidity | – | – |
| Hygrothermal conditions of use (stationary) | -10 °C to +35 °C<br>approx. 35 – 75 % rel. humidity | – | – |
| Water vapour diffusion resistance coefficient μ | 30/50 | – | – |
| Water absorption capacity surface (Cobb test) | < 300 | $g/m^2$ | EN 15283-2 |
| Flexural tensile strength | ≥ 8.7 | $N/mm^2$ | – |

## Sustainability and environment

| Description | | Value | Unit |
|---|---|---|---|
| Requirements acc. to AgBB-scheme for indoor use | | Complies | – |
| French emission class | | A+ | – |
| IBR Award certificate | | Tested and recommended | – |
| Eurofins Indoor Air Comfort 6.0 | | Erfüllt | – |
| Post-Consumer recycling share (mean value) | | Approx. 10 | % |
| Pre-Consumer recycling share (mean value) | | Approx. 40 | % |
| Environmental Product Declaration | EPD - IBU | EPD-BVG-20220090-IAG1-DE | – |
| | FDES - Inies | 20220930847 | – |

## Information on sustainability of Knauf GIFAfloor

Building assessment systems ensure the sustainable quality of buildings and structural facilities through a detailed evaluation of ecological, economic, social, functional and technical aspects.

In Germany, the following certification systems are particularly relevant:

- **DGNB System**
  German seal of quality for sustainable building of the DGNB (German Sustainable Building Council)
- **BNB**
  (Sustainable Building Rating System)
- **LEED**
  (Leadership in Energy and Environmental Design).

Knauf products and Knauf access flooring materials can positively influence numerous criteria here.

**DGNB/BNB**

*Ecological quality*

- *Criterion: Life cycle assessment of the building*
  Relevant environmental data are provided in the EPD.
- *Criterion: Risks for the local environment*
  Building material Gypsum as an ecological material

*Economic quality*

- Criterion: Building-related costs in the life cycle
  Economic Knauf dry construction

*Technical quality*

- Criteria: Deconstruction and recyclability
  Possible with Knauf dry construction

**LEED**

*Materials and Resources*

- Building Life-Cycle Impact Reduction
  Relevant data are provided in the EPD.
- Environmental Product Declarations
  Relevant data are provided in the EPD.
- Scourcing of Raw Materials
  Recycled content in Knauf GIFAfloor.

*Indoor Environmental Quality*

- Low Emitting Materials
  Knauf products are subject to regular VOC measurements.

## Disposal

GIFAfloor waste is subject to waste code 17 08 02 - gypsum based construction material or no. 17 09 04 mixed construction and demolition wastes which are not contaminated by hazardous substances.

## Building biology

Knauf GIFAfloor has been regularly tested by the IBR (Institut für Baubiologie Rosenheim) since 2003 and has since then been uninterruptedly certified by the Building Biology Recommendation Certificate. Knauf GIFAfloor meets the requirements of the French VOC class A+. Eurofins Product Testing A/S, Galten (DK) certifies that GIFAfloor complies with the required values for VOC emissions in Europe. GIFAfloor meets the requirements of Indoor Air Comfort 6.0.

IBR

Institut für **Baubiologie** Rosenheim GmbH

### Certificate of Award

Based on the excellent test results, the Seal of Approval

Geprüft und empfohlen – Institut für Baubiologie Rosenheim GmbH – IBR – Produkt überprüft auf VOC · Biozide · Schwermetalle und Radioaktivität

is hereby awarded to

KNAUF

Knauf Integral KG
D-74589 Satteldorf

for the tested product

**Knauf gypsum fibreboards**
(Certification-No. 3021 - 1190)

by the Institut für Baubiologie Rosenheim GmbH.

Reimut Hentschel, Managing Director
Rosenheim, February 2021

he Seal of Approval is awarded for 2 years. In the interest of consumers, follow-up testing of the products must be performed in due time before the Seal of Approval expires. The applicant will have to reapply for these tests.

IBR Institut für **Baubiologie** GmbH D-83022 Rosenheim Münchener Straße 18
Tel. +49 (0)8031 / 3675-0 Fax +49 (0)8031 / 3675-30 www.baubiologie-ibr.de

eurofins

### Attestation

European National Regulations on VOC emissions

On 27 February 2018, Eurofins Product Testing A/S received a sample of a ceiling panel with the product name:

**GIFAboard and GIFAfloor**

**supplied by**

**Knauf Integral KG**

The emissions were tested according to the regulations in Germany, France and Belgium. The test is in accordance with German AgBB (2015) and the guidelines of the DIBt (2010), the French legislation of 2011 on emission classes as specified in decree no 2011-321, and the Belgian Royal Decree C-2014/24239. Sampling, testing and evaluation were performed according to EN 16516, ISO 16000-3, ISO 16000-6, ISO 16000-9, ISO 16000-11 in the latest versions, see the test report no. 392-2018-00088701_A_DE.

The formaldehyde test result is similar to a test obtained with EN 717-1.

**Evaluation of the emission test result according to Indoor Air Comfort 6.0:**

- French VOC class: A+
- Carcinogenic substances were not detectable after 3 and after 28 days.
- The total of all VOC ("TVOC") and the sum of all VOC (AgBB) after 3 days both were below the limit of 10 000 µg/m³.
- The total of all VOC ("TVOC") and the sum of all VOC (AgBB) after 28 days both were below the limit of 1000 µg/m³.
- The total of all SVOC ("TSVOC") after 28 days was below the limit of 100 µg/m³.
- After 28 days the values $R_D$ and $R_B$ were below the limit of 1.
- The sum of VOC without $LCI_D$ after 28 days was below the limit of 100 µg/m³.
- Formaldehyde after 28 days was below the limit of 60 µg/m³.

**The tested product complies with referenced European regulations as of 13 April 2018**

13 April 2018

Nanna Boholm
Chemist

Rasmus Stenbaard Christensen
Analytical Service Manager, MSc in Chemistry

Eurofins Product Testing A/S • Smedeskovvej 38, 8464 Galten, Denmark • Tel. +45 70 22 42 76
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**Observe safety data sheet!**
For safety data sheet see
pd.knauf.de

The App Knauf Infothek provides all the current information and documents from Knauf Gips KG at any time and in every location in a clear and comfortable way.
knauf.de/infothek


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**The specifications provided in this product data sheet only apply for the panel material.**