

# fibreC Interior - Floor



# Flooring application of fibreC

## Concrete - not more and not less

fibreC is a glassfibre-reinforced concrete panel developed for use as facade cladding. Through the reinforcement with glassfibres and the use of purely mineral raw materials for production, fibreC is a top-quality, yet highly authentic building material.

The use of fibreC as indoor flooring is possible under certain conditions and creates a surface with the typical characteristics and appearance of concrete.

## Colours

fibreC floor panels are available in the colours silvergrey and anthracite. The panel surface is finely sandblasted (FL Ferro Light).

## Used Look, Vintage Style or Shabby Chic?

For a considerable time now a new interior design trend has established itself as an alternative to the sober and clearly structured furniture style that prevails today. Surfaces with character which show the traces of time have found their way into modern interior design. Characteristic features of this style include traces of usage, signs of ageing and typically restrained colours.

This effect can be achieved with the use of fibreC as flooring. Depending on the intensity of use, fibreC floors can be expected to show traces of usage. This is a purely visual characteristic that does not impair the technical properties of the floor panels. The interplay of colour shades emphasizes the sensory appeal of the material. The structure of fibreC, which is typical of concrete, gives the material an unmistakable, honest character.

## Areas of application

The floor panels are suitable for residential premises and occasional, light commercial applications (usage class 23/31). The use of fibreC in wet rooms is not recommended.

## Installation

All-over adhesion on the screed floor or another suitable, dry sub-floor with a special elastic parquet adhesive is required for fibreC flooring applications. The subsurface must comply with the relevant guidelines and meet all requirements with regard to its readiness for installation (the screed must be level and dry and allow for proper adhesion). It is recommended to chamfer the edges on the visible side of the fibreC elements on site to ensure that the floor panels are level.

The joints between the installed panels must be closed with a suitable, permanently elastic joint sealant. Connections to existing floors and walls must be executed with joints with a width of at least 5 mm resp. 10 mm (in case of underfloor heating). Since concrete is a porous material, a suitable natural stone coating must be applied to the fibreC floor after its installation to facilitate cleaning and make the panels suitable for use as flooring. Detailed information on the correct application of the coating is included in the usage guidelines. fibreC floors can be expected to have higher maintenance requirements and visual surface changes than ceramic floors or tiles

For details regarding possible coating systems see processing and adhesion guidelines.



# Technical Specifications\*

	fibreC 13 mm	Standard
<b>Size</b>	2500/1200 mm	
Dimensional variation length	± 3 mm	EN 12467
Dimensional variation width	± 2 mm	EN 12467
Diagonal difference	± 4.0 mm	DIN 18202
<b>Thickness</b>	13 mm	
Thickness tolerance	± 1.3 mm	EN 12467
Edge straightness (Level 1)	± 0.05 %	EN 12467
Perpendicularity (Level 1)	± 2 mm/m	EN 12467
<b>Physical characteristics</b>		
Tolerances facing up to 0.6   1.2 m	± 2 mm   ± 4 mm	DIN 18202
Tolerances facing up to 2.5 m	± 8 mm	DIN 18202
Swelling	0.384 mm/m	
Shrinkage	0.737 mm/m	
Water absorption	0.342%	
Bulk density	2.0 - 2.42 kg/dm <sup>3</sup>	
Elastic modulus	ca. 10,000 N/mm <sup>2</sup>	
Dead load / Mass per unit area (13 mm)	26 - 31.5 kg/m <sup>2</sup>	
Thermal expansion coefficient	10*10 <sup>-6</sup> 1/°k	DIN 51045
Material class without surface treatment	A1 - incombustible	DIN 4102   EN 13501
UV-light resistance	UV-resistant colour pigments	EN 12878
Specific heat capacity	ca. 1,000 Joule / (kg * K)	
Conductivity	lambda: ca. 2.0 W / (m * K)	
Slip-resistant properties I	C	DIN 51097
Slip-resistant properties II	R 9	DIN 51130

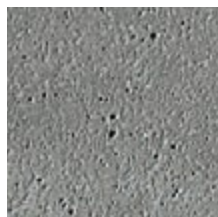
## Reinforcement

With alkali-resistant glassfibres in the matrix (Cem-FIL, Approval Z-3.72-1731)

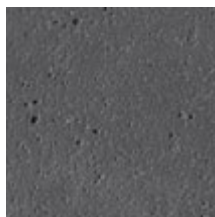
## Edge formation

Cut edges are unfinished and sharp-edged with a coarseness of about 1 mm on the visible face. Glassfibres may emerge at the edges.

## Colours



Silvergrey



Anthracite

## Surfaces

FL Ferro Light:  
Light sandblasted surface

Small air bubbles and porosity are possible: data sheet on exposed concrete 02/2004 (Publ.:BDZ/DBV)

## Colour, Design & Surface

Because concrete is a natural product, each glassfibre reinforced concrete panel is regarded as a single piece. Minor differences in colour, structure and texture are characteristic. Efflorescences or small, visible pores are not defects. The light resistance varies depending on the colour. Differences in the surface appearance, which do not affect the fitness for purpose of the panels, are permitted. EN 12467 / Data sheet Exposed concrete 02/2004 [Publisher.:BDZ/DBV]

\* Subject to the particular quotation documentation.

The information contained in this document and the technical description of product characteristics and the technical instructions for their use should not be interpreted as a contractual commitment on the part of the manufacturers. Despite careful inspection, no liability can be accepted for the correctness, completeness and topicality of the document. This is particularly true for typographical errors or subsequent changes to technical specifications.

# Characteristics of fibreC

## Vivid signs of a natural building material

Concrete is a natural product and Rieder sees it as such, with all its vital signs and characteristics. Living surfaces with the interplay of colour shades and light cloud effects, rather than dead and clinical surfaces are characteristic of fibreC. Even in the colouring of the concrete matrix, the focus is placed on meeting the ecological requirements of modern design. This is why the production involves natural raw materials to ensure the authenticity of all products. The demand for low porosity, homogeneous colour and strictly uniform smooth surfaces is not part of our sustainable philosophy. We consciously avoid chemical treatment and artificial materials to preserve the authenticity of the „green“ product fibreC. Colour and texture variations are a feature of our natural product.

## Concrete lives

As the panels are not chemically treated or painted, small defects, dents, tension lines, efflorescences or flaws and textures may be visible (Data sheet exposed concrete 02/2004 [Publ.:BDZ/DBV]).

When cement sets, it separates calcium hydroxide. This dissolves in water and can migrate to the concrete surface. When the water evaporates, the calcium hydroxide is returned to the surface and is converted to calcium carbonate (lime). If this natural process is intensified by unfavourable conditions, it leads to deposition of calcium carbonate, which is visible as a white efflorescence. Efflorescences are a natural feature of all cement-bonded composite materials.

## Part of nature - resistant & stable

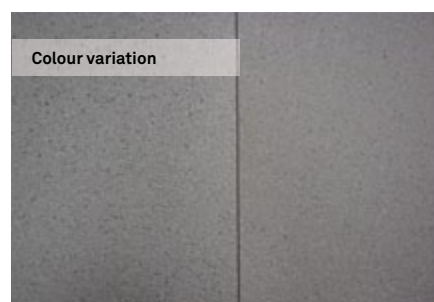
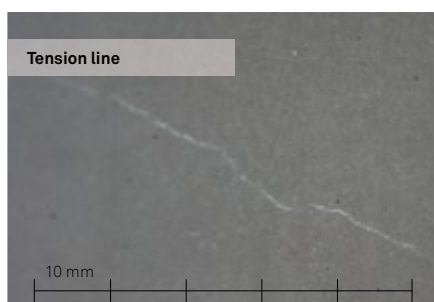
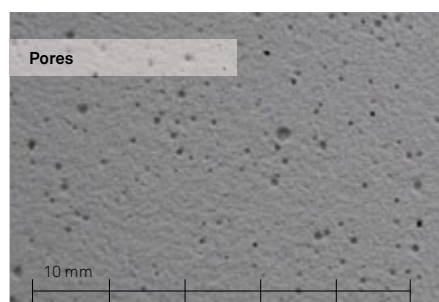
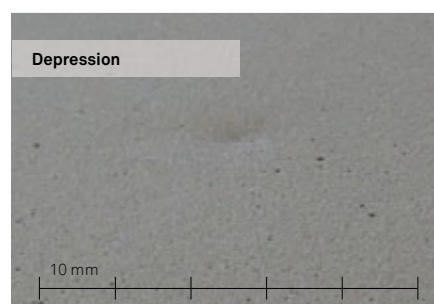
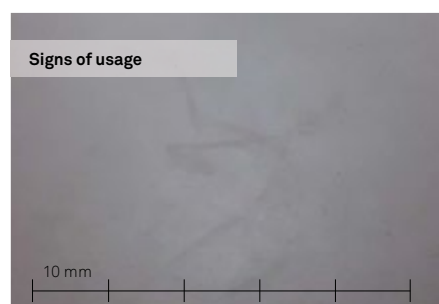
fibreC is not an artificially created material that exists cut off from the natural cycle of the environment. As adaptable and extraordinary the concrete skin is, it is just as authentic. fibreC is part of a natural cycle. Influencing variables for possible colour changes are temperature variations and differences in air humidity.

Untreated concrete is hygroscopic. It absorbs moisture and gives it off again. The large format of the panels means that moist spots may dry at different speeds. Visible colour changes may occur between individual panels and within a panel. The visible characteristics of concrete are intensified on matt panel surfaces.

## Note:

The surface characteristics described apply to the visible side of the cladding panel. fibreC sample panels can never reflect all of the above characteristics. In large-scale cladding applications, optical phenomena occur that cannot be detected on small sample panels.

Visual changes like micro-cracks (tension lines) do not affect the technical characteristics of fibreC. The static functions, the long-term stability and fire resistance are not affected.





# Projects







