

Glass-fibre reinforced concrete or GFRC is a type of fibre-reinforced concrete containing fibrous material which increases its structural integrity. It contains short fibres that are uniformly distributed and randomly oriented. The character of fibre-reinforced concrete changes with varying mixtures, element geometries and surfaces. The product is also known as GRC in British English.

Lindner manufactures premium GFRC products and normally uses spray methods in the production processes. Sprayed GFRC is generally stronger than premix vibration cast processes. The thin-walled design results in enormous weight savings compared to conventional types of concrete. Especially for cladding and elements with high aesthetic demands on 3D shapes, surfaces and colours, LinCrete light GFRC offers project-specific solutions combining the well-established advantages of Lindner Group's interior construction products. Compared to the standard production of GFRC, LinCrete light is composed of a different mix of aggregates with lower densities providing lightweight concrete products.

### PROPERTIES

- + Inherently stable
- + Lighter than standard GFRC mixtures
- + Solvent-resistant
- + Temperature/frost-resistant
- + UV-resistant
- + Weatherproof

### APPLICATIONS

- + Ceiling and wall claddings for interior fit-out
- + Renovation of historic buildings and structures
- + Facade and exterior claddings (suitable to a limited extent)
- + Noise barriers
- + Public elements and artificial landscaping
- + Religious buildings
- + Custom 3D-shaped structures
- + And many further applications



### CERTIFICATIONS / MEMBERSHIPS





## TECHNICAL DATA

Density	800 – 2,000 kg/m <sup>3</sup>
Compressive strength	16 – 50 N/mm <sup>2</sup>
Flexural strength	8 – 30 N/mm <sup>2</sup>
Water diffusion resistance	50 – 200 μ
Linear expansion	E-5: 1.00 – 1.50 x 10 <sup>-5</sup> 1/K
Glass-fibre content	Average range 2 – 5 % of the total weight



## DIMENSIONS

Element width	Standard up to 3,000 mm*
Element length	Standard up to 3,500 mm*
Material thickness	Min. 6 mm for interior fit-out elements; min. 12 mm for typical exterior applications
Joint width	Min. 10 mm for individual demountability

\*Please note that larger elements are producible, however, very large sizes might result in unwieldy and therefore also uneconomic elements if appropriate logistics chain methods and sufficient space on the transportation routes and on the building site can not be ensured.



## ACOUSTICS

<b>Sound absorption</b>	
Tested to EN ISO 354	Up to α <sub>w</sub> = 0.60, sound absorption class C
Tested to EN ISO 354 rated to ASTM C 423	Up to NRC = 0.70



## FIRE PROTECTION

<b>GFRC element including acoustic tissue and mineral wool backing</b>	
Tested to EN 13501-1	A2-s1, d0



## SUBSTAINABLILITY

<b>Environmental product declaration (EPD)</b>	
According to ISO 14021	Self-declared



## CERTIFICATION

EN 1169 / 1170 / 12467 / 12878 / 14649 / 15191 / 15422



## ADDITIONAL EQUIPMENT / SUBSTRUCTURE OPTIONS

Lindner pin channel substructure	With profiles embedded in the GFRC element
Undercut anchor fastening	Combinable with different substructure systems (e.g. with agraffe profile substructure systems approved for GFRC cladding elements)
Self-standing by means of floor-mounted studs	
Self-standing without substructure	E.g. if used as foundation element on the ground
Lindner wall cladding substructure or partition studs systems	
Lindner hook-on ceiling substructure systems	
Project-specific customised substructure systems by Lindner	



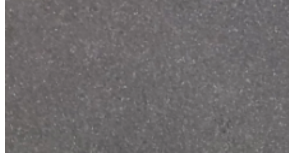
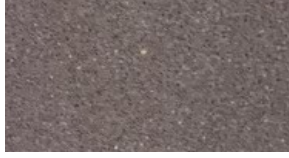

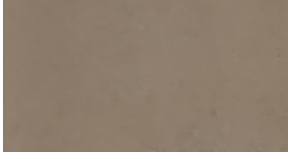
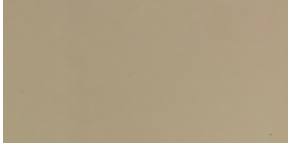


## SURFACES

Sandblasted	Grades: light   medium   heavy; individually as agreed upon
Acid etched	
Grinded	
Polished	
Painted	Paintable with standard concrete paint
Printed	For further information see LinCrete print
Plaster surface	
Various performance coatings	E.g. hydrophobized (coated water-repellant and / or mass-hydrophobized), anti-graffiti coating



## TABLE OF COLOURS – STANDARD COLOURS

Customised, project-specific solutions possible

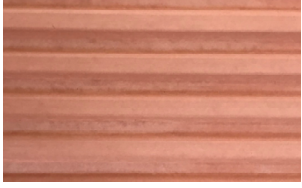

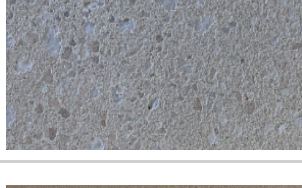
	SANDBLASTED (MEDIUM)	SMOOTH FINISH
<b>SLATE GRAY</b>		
<b>PASTEL VIOLET</b>		
<b>GREY BEIGE</b>		
<b>BEIGE GREY</b>		
<b>BEIGE</b>		
<b>YELLOW GREY</b>		
<b>RESEDA GREEN</b>		
<b>ORANGE BROWN</b>		





## POSSIBILITIES OF MOULDING / TEXTURED SURFACES

Customised, project-specific solutions possible

FLOOR TILES			
LINEAR SLAT APPEARANCE			
PERFORATION			
ROUGH PLASTER			
FINE PLASTER			
WOODLIKE APPEARANCE			
STONE / TERRAZZO SURFACE			
BRICK WALL APPEARANCE	