

TECHNICAL DATA

DESCRIPTION	SYMBOL	CHARACTERISTICS 28 DAYS	DESIGN RESISTANCE	SAFETY	CHARACTERISTICS
COMPRESSIVE STRENGTH	F_t	60 MPa	12 MPa	$\gamma=5$	MATERIAL Spray-up glass fibre reinforced concrete, Grade 18P according to GRCA
TENSILE STRENGTH	$UTS f_c$	10 MPa	4 MP _A	22 % af MOR	CEMENT White cement, EN 197-1
TENSILE DEFORMATION		1,2 %			SAND Crushed white dolomite or crushed calcium with crystallised structure sorted to well-defined grain. Both types are free of asbestos and asbestos like material.
BENDING STRENGTH, EN 1170-4/5 t ≥ 8 mm t < 8 mm	$LOP f_{db}$ $LOP f_{db}$ MOR	10 MPa 10 MPa 18 MPa	6 MPa 3 MPa 6 MPa	$\gamma_m=3$	GLASS FIBRE Alkali-resistant roving (Cem FIL AR glass fibre)
SHEAR STRENGTH	FT	3,5 MPa	2 MPa	$\gamma=1,7$	WATER Water of drinking water quality from public water supply, EN 1008
IN-PLANE SHEAR STRENGTH	FTB	9 MPa	4,5 MPa	$\Gamma=2$	ADDITIVES Superplasticisers based on melamin. Curing improvement admixture based on acrylic polymers (type Forton)
EXTRACTING CHOPPER (Ø4 mm)	Ø 4 mm Ø 6 mm BH-M6	2 kN 3,9 kN 2,2 kN	1,1 kN 2,1 kN 1,2 kN	$\gamma=1,8$ $\gamma=1,8$ $\gamma=1,8$	QUALITY Production of BB fiberbeton elements is carried out and controlled in accordance with BB fiberbeton A/S's quality manual. BB fiberbeton A/S's documentation for applying to quality manual is available on request. All elements from BB fiberbeton A/S are clearly marked with cast date, element number and serial number.
IMPACT RESISTANCE		40-50 kJ/m ²			TOLERANCES Thickness plane elements: +/- 2 mm Thickness 3D-elements: +/-3 mm Height and width of units: - Up to 4 m = +/- 3 mm - 4 to 9 m = +/- 5 mm
E-MODUS Short term Long term U short U long	E_s E_t U_k U_l	20 X 10 ³ MPa 8.5 X 10 ³ MPa L/200 L/350	14 X 10 ³ MPa 4.7 X 10 ³ MPa	$\gamma_G=1,4$ $\gamma_G=1,8$	Straightness (local smoothness) or bow (deviation from intended line): - Up to 3 m = 5 mm - 3 to 6 m = 8 mm
ISOLATION ABILITY	°C	0.5-1.0 w/m			Squareness: Difference in length of 2 diagonals = 3 mm per 2 m, up to maximum of 6 mm Twist (any corner from the plane containing the other 3 corners): - Up to 3 m = 5 mm - 3 to 6 m = 8 mm
TEMPERATURE EXPANSION		1.0 X 10 ⁻⁵ / °C			
MOISTURE EXPANSION		0.1-1.5 %			
DEAD WEIGHT		20 kN/m ³			
SPECIFIC HEAT	°C	≈ 2.4 MJ/m ³			
SOUND REDUCTION 1 = 10 mm		30-32 dBA			
FIRE RESISTANCE CLASSIFICATION		Class A2-s1, d0 material, EN 13501			

The above listed material data can be used dimensioning of spray-up GFRC from BB fiberbeton A/S.

Characteristic strength parameters are based on 5% fractal and indicates uniaxial stress states. In the above design strengths, partial coefficient $\gamma = 1.8$ is used.

This means that the design material parameters are specified for normal safety class and normal control class.



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