

Product specifications CFC (carbonfibre reinforced carbon)

Our CFC is an innovative, for all purpose useable, fibre reinforced material, based on a matrix made of graphite. The fields of application cover amongst others the high temperature range, in which a temperature resistance up to 2500 °C can be ensured by the use of inert gas or vacuum. There is only a very small deformation and no embrittlement of the material, even with “chilling”. In addition we ensure a good corrosion resistance against a lot of materials and this with only a fifth of weight compared to steel.

Technical Properties

Material		PC70	PC40	PC30	WL60
Bulk Density	g/cm ³	1,7	1,7	1,7	1,6
Flexural Strength	Mpa	200	150	200	150
Compressive Strength	Mpa	210	190	200	120
Interlaminar Shear Strength	Mpa	17	15	15	11
RT-1300°C		1,3	0,3	1,1	1,1
Coefficient of Thermal Expansion	10 ^{⁻⁶}	10	10,6	10,5	9
Thermal Conductivity	W/m·K	35	75	130	33
		12	20	29	10
Specific Heat	20C J/kg·K	720	740	720	
Electrical Resistivity	μΩcm	2000	1300	1000	2800
Charpy Impact Strength	KJ/m ²	20			
Shore Hardness		75			
Temperature Rating	°C	2000	2500	2500	2000

Available Sizes

Grade	Thickness (mm)	Length and Width (mm)	Grade	Thread	Length (mm)
PC70	1T - 50T (1 mm increments)	2000 x 1000 - 1120 x 1120	PC70	M6 - M30	1000 - 1500
PC40	3T - 30T (1 mm increments)	1000 x 1500 - 1000 x 2000	Grade	Rod	Length (mm)
PC30	30T - 50T	500 x 1000	PC70	∅6 - ∅30	1000 - 1500
WL60	2T - 5T	1000 x 1000			

PC und WL C/C Products

Components	Products	PC70	PC40	PC30	WL60
Furnace Constructions Components	Structural Panels	+	+		+
	Srews, Nuts	+	+	+	
	Threaded bar. Rods	+	+		
	Fans	+	+	+	
	Beams, Base Trays	+	+		
	Rollers	+	+	+	
Insulation Protection	Muffles, Susceptors	+	+		
Heating Systems	Heat Shields, Liners	+			+
	Tubes, Cylinders				+
	Heating Elements, Connectors			+	