

Technical Data Sheet PF CC 203 (Hgw 2083)

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Fine-cotton-fabric laminate with phenolic resin acc. to DIN 7735 / EN 60893 – higher strength than the standard grade Hgw 2082

Typical Properties

- Higher mechanical strength than Hgw 2082
- Finer fabric structure, smoother surface
- Good electrical insulation properties
- Thermoset laminate (dimensionally stable)
- Good machinability
- Colour brown

Typical Industries

- Electrical and insulation technology (low voltage)
- Precision mechanics and fine mechanical engineering
- Jig, fixture and tool making
- Drive technology (gears, cams, sliding elements)
- Switchgear and equipment construction
- Mechanical and plant engineering

	Test Method	Unit	Value
Mechanical Properties			
Flexural strength	DIN 53452	MPa	180 (DIN 7735: 150)
Impact strength	DIN 53453	kJ / m ²	45 (DIN 7735: 35)
Notched impact strength	DIN 53453	kJ / m ²	20 (DIN 7735: 15)
Tensile strength	DIN 53455	MPa	150 (DIN 7735: 100)
Compressive strength	DIN 53454	MPa	200 (DIN 7735: 170)
Bond strength (splitting force)	DIN 53463	N	4000 (DIN 7735: 2500)
Modulus of elasticity	DIN 53452	MPa	8 · 10 ³ (DIN 7735: 7 · 10 ³)
Electrical Properties			
Electric strength / ⊥	DIN 53481	kV	17 / 12 (DIN 7735: 8 / 5)
Dielectric constant	DIN 53483		5 (DIN 7735: 5)
Comparative tracking index CTI	IEC 60112		160 (DIN 7735: 100)
Thermal Properties			

	Test Method	Unit	Value
Limiting temperature	VDE 0304, T.21	°C	110
Thermal conductivity	DIN 52612	W / (m*K)	0.2
Coefficient of linear thermal expansion	VDE 0304	10 ⁻⁶ / K	20 (DIN 7735: 20-40)
Thermal class	VDE 0534		E
Resistance to glow heat	DIN 53459		2b

General Properties

Density	DIN 53479	g / cm ³	1.36 (DIN 7735: 1.3-1.4)
Water absorption (5 mm thickness)	DIN 53495	mg	110 (DIN 7735: 130)
Colour			brown

PF CC 203 (Hgw 2083) is a fine-cotton-fabric-reinforced phenolic-resin laminate acc. to DIN 7735 / EN 60893. Compared with the standard grade Hgw 2082, the finer fabric provides higher mechanical strength and a smoother surface. The values stated comprise the minimum requirement acc. to DIN 7735 and the typical measured value; they are subject to the usual manufacturing tolerances and serve as an aid to material selection. They are not a legally binding warranty of specific properties. PF CC 203 (Hgw 2083) is not declared for direct food contact.