APSOplast® PF CC 201 brown

Engineering Plastic Technology
Technical Data Sheet

Application purpose and characteristics

Universally applicable. Blades in air motors, compressors and vacuum pumps, gears, bearings and bearing half-shells.
Thanks to the use of fine cotton fabric, this hard fabric has very good mechanical properties and is particularly suitable for parts with demanding mechanical processing in mechanical engineering.
Well suited for components that require no special lubrication and must ensure low-wear power transmission (gears).

Product description	
Material name, long description	Laminated paper fabric sheets made from phenolic resin and fine cotton fabric
Material name, short description	PF CC 201
Material Code	PF CC 201.020-00
Density	1.3 - 1.4 g/cm³
Color	brown

Mechanical properties	
Tensile strength	Test value: 80 MPa Test norm: DIN 53455
Flexural modulus of elasticity	Test value: 7000 MPa Test norm: DIN 53457
Bending strength	Test value: 130-140 MPa Test norm: DIN 53452
Compressive strength	Test value: 170 MPa Test norm: DIN 53454 Test parameter: parallel to the layer direction
Notch impact strength	Test value: 9-10 kJ/m² Test norm: DIN 53453
Impact strength	Test value: 30 kJ/m² Test norm: DIN 53453
Shear strength	Test value: 60 MPa Test parameter: parallel to the layer direction
Thermal properties	
Coefficient of linear thermal expansion	Test value: 20-40 10^{6}/K Test norm: VDE 0304
Thermal conductivity	Test value: 0.2 W/m·K Test norm: DIN 52612
Limit temperature	Test value: 110-120 °C Test norm: VDE 0304

Electrical properties	
Dielectric constant	Test value: 5 Test norm: IEC 250
Dielectric strength	Test value: 1 kV Test norm: DIN 53481 Test parameter: parallel to the layer direction
	Test value: 1-1.6 kV/mm Test norm: DIN 53481 Test parameter: perpendicular to the layer direction
Creep resistance	Test value: 100 CTI Test norm: IEC 112
Insulation resistance	Test value: 1 Ohm Test norm: DIN 53482
Other properties	
Water absorption at saturation	Test value: 249 mg Test norm: DIN 53495