

Physical properties Cevodur 1P13 - plate

comparable standards: ISO-description (ISO) PF CP 201
description (to DIN 7735) HP 2061 (plate)

Property	Method of testing	Unit	max./min.	Ref. Value IEC 60893-3-4	Test value Median
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Mechanical properties

Flexural stress at rupture perpendicular to laminations	ISO 178	MPa	min.	135	142.59
Apparent modulus of elasticity in flexure	ISO 178	MPa	min.	7000*	9921
Compressive strength perpendicular to laminations	ISO 604	MPa	min.	300*	305.8
Impact strength (Charpy) parallel to laminations	ISO 179/3C	kJ/m ²	min.		13.7
Shearing strength parallel	VDE 0318/2	MPa	min.	10*	24.44
Tensile strength	ISO 527-4	MPa	min.	120*	158.2

Electrical properties

Electric strength at 90°C in oil perpendicular to laminations	IEC 60243-1	kV/mm	min.		3.25
Breakdown voltage at 90°C in oil parallel to laminations	IEC 60243-1	kV	min.		15
Insulation resistance after immersion in water	IEC 60167	MΩ	min.		223
Proof tracking index PTI	IEC 60112	PTI			
Comparative tracking index CTI	IEC 60112	CTI	min.	100*	120
Tracking and erosion resistance	IEC 60112	Class	min.		

Other properties

Thermal endurance	IEC 60216	T.I.		120*	
Density	ISO 1183	g/cm ³		1,3 – 1,4*	1.454
Water absorption, absolute	ISO 62	mg	max..	920***	118.10

Base material: Cellulose paper
Matrix resin : Phenolic

* Typical values as per IEC 60893-4. They shall not be considered as specification requirements.

** for thickness >=3,0mm

*** for test specimens 50 x 50 x10 mm

Test values are derived from an average type test

This table is a valuable help in the choice of a material. The data listed here fall within the normal range of products properties, but they should not be used to establish material specification limits nor used alone as the basis of design.