

Product Data Sheet MKHP- E

Property	Method of test	Unit	max. or min.	Ref. Value	Test value (median)
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Mechanical properties

Flexural stress at rupture perpendicular to laminations	ISO 178	MPa	min.	120	A 208,28 B 144,72
Apparent modulus of elasticity in flexure	ISO 178	MPa	min.	7000	A 13642 B 9561
Compressive strength perpendicular to laminations	ISO 604	MPa	min.	250	290,03
Impact strength (Charpy) parallel to laminations	ISO 179/3C	kJ/m ²	min.		A 21,21 B 12,65
Shearing strength parallel to laminations	VDE 0318/2	MPa	min.	10	A 25,83 B 16,65
Tensile strength	ISO 527-4	MPa	min.	70	A 158,76 B 89,70

Electrical properties

Electric strength at 90°C in oil perpendicular to laminations	IEC 60243-1	kV/mm	min.	13	16,34
Breakdown voltage at 90°C in oil parallel to laminations	IEC 60243-1	kV	min.	40	50
Insulation resistance after immersion in water	IEC 60167	MOhm	min.		230
Proof tracking index PTI	IEC 60112	PTI			
Comparative tracking index CTI	IEC 60112	CTI	min.	600	600
Tracking and erosion resistance	IEC 60112	Klasse	min.		

other properties

Thermal endurance	IEC 60216	T.I.		120	
Density	ISO 1183	g/cm ³		1,3 - 1,45	1,435
Water absorption, absolute	ISO 62	mg	max.	149*	111,100
Water absorption, relative	ISO 62	%	max.	0,4	0,31

Base material: Cellulose paper
Matrix resin: Phenolic
Melamine in the liner

* for test specimens 50 x 50 x 10 mm
Test values are derived from an average type test

RoHS- Declaration This material does not contain any substances of very high concern as listed in the EU directive 2011/65/EU, article 4, paragraph 1