

Datasheet AS EP PC 301

Standard types according to DIN EN 60893.

Sheets made from industrial laminated materials.

Value: Minimum requirements of DIN EN 60893.

Value: Typical values, general recommended values, which must not be used as standard values.

- (1): The flexural strength measured at 150 °C ± 3K must not be less than 50% of the defined value.
 (2): The flexural strength measured at 130 °C ± 3K must not be less than 50% of the defined value.
 (3): After 96 h pretreatment in air at 105 °C ± 5K directly prior to testing and immediate immersion in the hot oil.
 (4): UL- listed file E307596.

Material	
Characteristic property applications	Epoxy-laminated polyester fiber cloth, SF6-resistant
Resin	Epoxy
Substrate	Polyester fiber

Availability	Unit	Value
Sizes	mm	1050x1020, 1050x2150 and 1250x2800
Thickness	mm	0.1-360

Physical Properties	DIN EN 60893-2	Test Standard	Unit	Min/Max	Value
Density	8.1	ISO 1183	g/cm ³		1.2-1.4
Water absorption (thickness 10 mm)	8.2	ISO 62	mg	Max	220

Mechanical Properties	DIN EN 60893-2	Test Standard	Unit	Min/Max	Value
Flexural strength	5.1	ISO 178	MPa	Min	140
Elastic modulus from bending test	5.2	ISO 178	MPa	Min	3.000
Compressive strength perpendicular	5.3	ISO 604	MPa	Min	200
Impact strength Charpy or Izod	5.4.2/5.4.3	ISO 179/3C	kJ/m ²	Min	55
Shear strength parallel	5.5	VDE 0318/2	MPa	Min	12
Tensile strength	5.6	ISO 527-4	MPa	Min	135

Electrical Properties	DIN EN 60893-2	Test Standard	Unit	Min/Max	Value
Dielectric strength perpendic at 90 °C in oil (thickness 3 mm)	6.1.3.1	IEC 60243-1	kV/mm	Min	10.2
Dielectric strength parallel at 90 °C in oil	6.1.3.2	IEC 60243-1	kV	Min	45
Permittivity 50 Hz	6.2	IEC 60250		Max	5.3
Permittivity 1 MHz	6.2	IEC 60250		Max	5.3
Dissipation factor 50 Hz	6.2	IEC 60250		Max	0.05
Dissipation factor 1 MHz	6.2	IEC 60250		Max	0.05
Insulation resistance	6.3	IEC 60167	MΩ	Min	100
Proof tracking index	6.4	IEC 60112	V	Min	-
Comparative tracking index	6.4	IEC 60112	V	Min	380

Thermal Properties	DIN EN 60893-2	Test Standard	Unit	Min/Max	Value
Thermal endurance	7.1	IEC 60216	T.I.	Min	130
Flammability	7.2	IEC 60707	Category		-