

Datasheet AS PF CP 22

Standard types according to DIN EN 61212.

Tubes made from industrial laminated materials.

Value: Minimum requirements of DIN EN 61212.

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): After 96 h pretreatment in air at 105 °C ± 5K directly prior to testing and immediate immersion in the hot oil.

Material	
Characteristic property applications	Electrical applications at high-voltage mains frequency
Resin	Phenolic
Substrate	Cellulose paper

Availability	Unit	Value
Diameter	mm	2-250

Physical Properties	DIN EN 61212-2	Test Standard	Unit	Min/Max	Value
Water absorption	7.2	ISO 62	mg/cm ²	Max	-
Density	7.3	ISO 1183	g/cm ³		1.05-1.15
Combustibility	UL 94		Category		-

Mechanical Properties	DIN EN 61212-2	Test Standard	Unit	Min/Max	Value
Flexural strength perpendicular to laminations	5.1	ISO 178	MPa	Min	100
Compressive strength axial	5.2	ISO 604	MPa	Min	80
Cohesion between layers	5.3	IEC 61212-2	MPa	Min	70

Electrical Properties	DIN EN 61212-2	Test Standard	Unit	Min/Max	Value
Dielectric strength perpendicular at 90 °C in oil (thickness 3 mm)	6.1	IEC 60243-1	kV/mm	Min	9.9
Dielectric strength parallel at 90 °C in oil	6.1	IEC 60243-1	kV	Min	50 ⁽²⁾
Insulation resistance	6.2	IEC 60167	MΩ	Min	1
Permittivity 50 Hz	6.3	IEC 60250		Max	-
Permittivity 1 MHz	6.3	IEC 60250		Max	-
Dissipation factor 50 Hz	6.3	IEC 60250		Max	-
Dissipation factor 1 MHz	6.3	IEC 60250		Max	-

Thermal Properties	DIN EN 61212-2	Test Standard	Unit	Min/Max	Value
Thermal endurance	7.1	IEC 60216	T.I.	Min	120