Etronax P EP - Sheet

Components: Polyester fabric - Epoxy
Colour*: Yellow
Serial no.: 290
Version no.: V1.0-17/06/15

Closest relevant standards
IEC 60893: EP PC 301
DIN 7735: -
NEMA LI 1: -

Mechanical properties	Test method	Thickness	Value	Unit	
Bending strength at RT	ISO 178	≥ 1,5 mm	150	MPa	*1
Bending strength at a high temperature	ISO 178	≥ 1,5 mm	-	MPa	-
Modulus of elasticity	ISO 178	≥ 1,5 mm	4500	MPa	*1
Compressive strength	ISO 604	≥ 5 mm	450	MPa	*1
Izod impact strength, parallel with layers	ISO 180/2A	≥ 5 mm	50	Kj/m^2	*1
Shearing strength, parallel	ISO 60893-2	≥ 5 mm	35	MPa	*1
Tensile strength	ISO 527	≥ 1,6 mm	135	MPa	*1

Electrical properties	Test method	Thickness	Value	Unit	
Electrical strength in oil at 90°C, perpendicular	IEC 60243-1	3 mm	20	kV/mm	*2
Electrical strength in oil at 90°C, parallel	IEC 60243-1	≥ 3 mm	70	kV/25mm	*2
Permitivity 50 MHz	IEC 62631-2-1	≤ 3 mm	4		*3
Permitivity 1 MHz	IEC 62631-2-1	≤ 3 mm	-		-
Dissipation factor 50 MHz	IEC 62631-2-1	≤ 3 mm	0.01		*3
Dissipation factor 1 MHz	IEC 62631-2-1	≤ 3 mm	-		-
Insulation resistance after submersion in water	IEC 62631-3-3	All	100000	MΩ	*4
Comparative tracking index	IEC 60112	≥ 3 mm	200	CTI	*1

Conditioning

1	24h/23°C/50%RH
2	24h/23°C/50%RH + 1h/ in oil at 90°C
3	96h/105°C + 1h/23°C/20%RH
4	24h/50°C/<20% RH + 24h in water at 23°C
5	96h/105°C + 1h/ in oil at 90°C

Notes

A	1h/130°C / measured at 130°C
B	1h/150°C / measured at 150°C
C	Halogen free
D	1h/180°C / measured at 180°C
E	1h/200°C / measured at 200°C

* Note that color and surface are indicative. As this is a technical product, colour and expression may vary according to dimensions, batches and machining. If you want further information or have special decorative needs, please feel free to contact us.

ELEKTRO-ISOLA

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Physical and thermal properties	Test method	Thickness	Value	Unit	
Temperature index 20,000 h (T.I.)	IEC 60216	≥ 3 mm	130	°C	-
Fire class	IEC 60695-11-10	-	-	-	-
Density	ISO 1183-A	All	1.35	g/cm³	-
Water absorption	ISO 62-1	50x50x3 mm	20	mg	-
Smoke emission & toxicity	EN 45545-2; R22, R23 & R24	-	-	-	-
Oxygen Index (OI)	EN ISO 4589-2	-	-	%	-
Smoke density (Ds max.)	EN ISO 5659-2	-	-	-	-
Smoke density (Ds max.)	EN ISO 5659-2	-	-	-	-
Toxicity (CIT_{NLP})	NF X 70-100-1/-2	-	-	-	-

Characteristics and applications

The material is distinguished by being strong and tough. Very low water absorption and lowest swelling in water. High chemical resistance, e.g. to SF6 gas. Suitable for high-voltage circuit breakers where SF6 gas is used as insulation medium.

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