

laminates

DELMAT POLYESTER 68010

- ▶ Internal Classification GPO-3 according to NEMA LI 1 standard, above 2,4mm
- ▶ UL approved, file number E 70284
- ▶ Good mechanical properties at high temperatures (Temperature Index 155)
- ▶ Flame retardant above 2,4mm thickness
- ▶ Halogen free
- ▶ Fire classification acc.to NF F 16-101 : M1 I1 F0
- ▶ Easy to cold punch up to 6mm

General description

Delmat Polyester 68010 are laminates based on glass mat and polyester resin systems.

RoHS Directive

Hazardous products listed in the EU-directive 2002/95/CE (ROHS-directive), §4 section 1, are not used as ingredients in this material.

Application

Switchboards
LV- and HV circuit breakers
Phase barriers
Switchboard bottom plates
Arc chute chambers panels
Connection supports
Protection panels
Insulation carriers
Cable clamps
Bus bars supports
Power electronics...

Standards

NEMA LI 1 : GPO-3 thickness above 2,4mm
IEC 60893-3-5 : UP GM 203
EN 60893-3-5 : UP GM 203
NF C 26-153 : Vm P2e
DIN 7735 : Hm 2471

Form of delivery

Sheet size : 2000 +/-10mm x 1000 +/-10mm
Thicknesses : 0,8mm to 3,0mm

The sheets are untrimmed. Homogeneity on a width of 13mm from the edges is not guaranteed.

This product can be delivered in machined parts according to specific drawings.

Colour

Red, RAL 3002

The product properties set forth in this data sheet are based on the results of testing of typical material produced by the affiliated companies of Von Roll Holding Ltd. (underneath referred as Von Roll). Some variation in product properties is typical. Comments or suggestions relating to any subject other than product properties are offered only to call the end-user's or other person's attention to considerations which may be relevant in the independent determination of the use and/or manner of use of

		Value	Test norm
Mechanical properties			
Tensile strength, //, at 23°C	MPa	70	ISO 527
Flexural strength at 23°C, flatwise	MPa	130	ISO 178
Flexural strength at 130°C, flatwise	MPa	70	ISO 178
Modulus of elasticity in flexure at 23°C, flatwise	MPa	8000	ISO 178
Compressive strength at 23°C, flatwise	MPa	230	ISO 604
Compressive strength //, at 23°C	MPa	160	ISO 604
Edgewise notched impact strength Charpy	kJ/m ²	47	ISO 179
Edgewise notched impact strength IZOD	kJ/m ²	47	ISO 180
Bonding strength (10mm thick)	N	4000	ASTM D 229
Electrical properties			
Insulation resistance, as received	MOhm	10 ⁷	IEC 60167
Insulation resistance, after 24h immersion in water at 23°C	MOhm	10 ³	IEC 60167
Edgewise breakdown voltage, step by step, in oil at 23° C after immersion 48h/50°C/water	kV	30	IEC 60243-1
Edgewise breakdown voltage, step by step, in oil at 90° C, as received	kV	60	IEC 60243-1
Flatwise electric strength, step by step test, in oil at 90°C	kV/mm	12	IEC 60243-1
Comparative tracking index - CTI		600	IEC 60112
Arc resistance	s	180	ASTM D 495
Tracking and erosion resistance		1 B 2.5	IEC 60587
Relative permittivity at 1 MHz		<4.5	IEC 60250
Dissipation factor at 1 MHz		<0.05	IEC 60250
Physical properties			
Density	g/cm ³	1.8 ± 0.1	ISO 1183 (method A)
Water absorption after 24h immersion at 23°C, thickness 4mm	mg	<50	ISO 62 (method 1)
Flammability according to UL 94 (thickness > or = 2,4mm)		94 V-0	UL 94
Thermal properties			
Temperature index (TI)		155	IEC 60216

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