ORLITE INDUSTRIES (MILLENIUM 2000) LTD.

Technical datasheet

Product description

The cabinets are made of fiberglass-reinforced polyester -the well-known SMC molding technique which is readily worked with common tools.

Polyester enclosures are ideally suited for outdoor installations and use in hot, humid, and chemically aggressive environments.

Typical applications are housings, covers, wire distribution boxes, metering cabinets.

Product Constructional

SMC is a sheet-molding compound. A thermoset derived from unsaturated polyester resins (mineral fillers) reinforced with glassfibers.

In case of fire the product doesn't melt, and neither changes droplets are formed, nor smoke excessiveness.

The glass content is on a level that combines good mould ability in heated moulds on hydraulic presses with mechanical properties regarding strength and stiffness.

The flammability meets the demands of standard UL 94 category V0.

The product contains no halogens.

Physical properties (tested on standard coupon test); typical values

Test	Norm	Unit	
Young's modulus	DIN EN 527-4	GPa	12
Tensile strength	DIN EN 527-4	MPa	62
Flex strength	ISO 14125	MPa	150
Flex modulus	ISO 14125	GPa	10
Impact strength	ISO 179	kJ/m²	> 68
Volume resistivity	IEC 60093	Ohm/cm	10**14
Surface resistivity	IEC 60093	Ohm	10**12
Tracking index	IEC 60112	Stufe	CTI600
Dielectric strength	IEC 60243.1	kV/cm	240
Dielectric constant	IEC 60250		4.0
Dissipation factor	IEC 60250	Tan Delta	0.010
Water absorption	ISO 62	mg/4d	45
Surface resistance	IEC 60093	Ohm	$>10^{12}$
Dielectric resistance	IEC 60243) (equiv. VDE 0303 Part 2)	kV/mm	> 18
Stabillity by light	DIN EN ISO 877		7 – 8
Tropical and moisture resistance	IEC 60068-2-5 ed. 69		without any degradation
Stability of shape	ISO 75 (equiv. DIN 53462)		> 200°C
Temperature resistance continiously		°C	– 50 - + 150
Flame resistance	UL 94 V0	mm	3,9

- The data is our latest know-how and can be used for classification and / or engineering calculations only. The customer must verify if material fulfill his requirements for the required application or product.