

Technický datový list

Durostone[®] UPM S1

GFK-UP

Vlastnosti produktu

- SMC high-pressure laminate
- Special polyester (UP) resin matrix reinforced with an e-glass roving mat
- High mechanical strength
- High dielectric strength
- Flame retardant

Typické oblasti použití

- Spínací zařízení
- Obnovitelné energie
- Elektrotechnický průmysl
- Elektrické izolační konstrukční díly
- Generátory a motory
- Semiconductor High and low temperature

	Testovací metoda	Jednotka	Orientační hodnota
Mechanické vlastnosti			
Hustota	ISO 1183	g / cm ³	2,0
Pevnost v ohybu [⊥]	ISO 178	MPa	200
Modul pružnosti v ohybu [⊥]	ISO 178	MPa	15000
Pevnost v tlaku [⊥]	ISO 604	MPa	350
Pevnost v tlaku II	ISO 604	MPa	180
Pevnost v tahu II	ISO 527	MPa	120
Rázová houževnatost II (Charpy)	ISO 179	kJ / m ²	100
Delaminační síla II	DIN 53463	N	2600
Tepelné vlastnosti			
Hořlavost	UL 94	/	V0 / 3mm
Hustota dýmu & toxicita, třída	NF F 16-101	/	F0
Požární zkouška, třída	NF P 92-501	/	M1
Součinitel lineární roztažnosti [⊥]	TMA (Mettler)	10 ⁻⁶ x K ⁻¹	40 - 60
Součinitel lineární roztažnosti II	TMA (Mettler)	10 ⁻⁶ x K ⁻¹	10 - 20
Teplotní index	IEC 60216	T.I.	155
Izolační třída	IEC 60085	/	F
Fyzikální vlastnosti			

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	Testovací metoda	Jednotka	Orientační hodnota
Absorpce vody (4 mm tloušťka)	ISO 62	%	0,2
Dielektrické vlastnosti			
Elektrická pevnost 90 °C v olejové lázni \perp	IEC 60243	kV / mm	13
Elektrická pevnost 90 °C v olejové lázni II	IEC 60243	kV/25mm	75
Relativní permitivita (50 Hz)	IEC 60250	ϵ_r	$\approx 4,5$
Dielektrický ztrátový činitel (50 Hz)	IEC 60250	$\tan \delta$	$\approx 0,01$
Měrný povrchový odpor	IEC 60093	Ω	10^{13}
Měrný objemový odpor	IEC 60093	$\Omega \times \text{cm}$	10^{13}
Srovnávací sledovací index	IEC 60112	CTI	600 M

\perp = perpendicular to the lamination II = parallel to the lamination

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