

## Technický datový list

Durostone<sup>®</sup> 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
<b>Mechanické vlastnosti</b>			
Hustota	ISO 1183	g / cm <sup>3</sup>	2,0
Pevnost v ohybu <sup>⊥</sup>	ISO 178	MPa	200
Modul pružnosti v ohybu <sup>⊥</sup>	ISO 178	MPa	15000
Pevnost v tlaku <sup>⊥</sup>	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 <sup>2</sup>	100
Delaminační síla II	DIN 53463	N	2600
<b>Tepelné vlastnosti</b>			
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 <sup>⊥</sup>	TMA (Mettler)	10 <sup>-6</sup> x K <sup>-1</sup>	40 - 60
Součinitel lineární roztažnosti II	TMA (Mettler)	10 <sup>-6</sup> x K <sup>-1</sup>	10 - 20
Teplotní index	IEC 60216	T.I.	155
Izolační třída	IEC 60085	/	F
<b>Fyzikální vlastnosti</b>			

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	Testovací metoda	Jednotka	Orientační hodnota
Absorpce vody (4 mm tloušťka)	ISO 62	%	0,2
<b>Dielektrické vlastnosti</b>			
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	$\epsilon_r$	$\approx 4,5$
Dielektrický ztrátový činitel (50 Hz)	IEC 60250	$\tan \delta$	$\approx 0,01$
Měrný povrchový odpor	IEC 60093	$\Omega$	$10^{13}$
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

The data stated above are average values verified on the basis of regular statistical tests and controls. All information in this publication is based on current technical knowledge and experience. Due to the large number of possible influences during processing and application, it does not exempt the user/processor from carrying out their own tests and trials. Responsibility for the evaluation of the end product for the intended use and compliance with the applicable relevant legal requirements lies exclusively with the user/processor as well as the distributor of the respective product/end product. Suggested uses do not constitute an assurance of suitability for the recommended purpose. The information in this publication and our declarations in Connection with this publication do not constitute acceptance of a guaranteed or warranted characteristic. Guarantee declarations require our separate express written declaration in order to be effective. We reserve the right to adapt the product to technical progress and new developments. The products described in this publication are only sold to customers with the appropriate expertise and not to consumers. Please do not hesitate to contact us if you have any questions or if you experience any specific application problems. If the application for which our products are used is subject to an official approval requirement, the user/processor is responsible for obtaining these approvals. Our application recommendations do not exempt the user/processor from the obligation to examine and, if necessary, clarify the possibility of infringements of third-party rights. In all other respects, we refer to our General Terms and Conditions (GTC). These are available at: [www.roechling-industrial.com/gtc](http://www.roechling-industrial.com/gtc)

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