

Technical Data Sheet

Durostone[®] UPM S13 LST

GFK-UP

Typical characteristics

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

Typical industries

- Rail Technology and Vehicles

	Test method	Unit	Guideline value
Mechanical properties			
Density	ISO 1183	g / cm ³	2,1
Flexural strength [⊥]	ISO 178	MPa	160
Modulus of elasticity in flexion [⊥]	ISO 178	MPa	12000
Compressive strength [⊥]	ISO 604	MPa	280
Compressive strength II	ISO 604	MPa	180
Tensile strength II	ISO 527	MPa	80
Impact strength II (Charpy)	ISO 179	kJ / m ²	100
Shear strength [⊥]	BS 2782/340B	MPa	85
Shear strength II	BS 2782/340B	MPa	80
Delamination force II	DIN 53463	N	2000
Thermal properties			
Flammability	UL 94	/	V0 / 1mm
Flammability req. R1	DIN EN 45545-2		HL3
Flammability req. R7	DIN EN 45545-2		HL3
Flammability req. R17	DIN EN 45545-2		HL3
Physical properties			
Water absorption (method 1)	ISO 62	%	0,1
Dielectrical properties			
Electric strength 90°C under oil [⊥]	IEC 60243	kV / mm	13

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	Test method	Unit	Guideline value
Electric strength 90°C under oil II	IEC 60243	kV/25mm	75
Specific surface resistance	IEC 60093	Ω	10^{14}
Specific volume resistance	IEC 60093	$\Omega \times \text{cm}$	10^{13}
Comparative tracking index (test solution B)	IEC 60112	CTI	600 M

⊥ = perpendicular to the lamination || = parallel to the lamination

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