

M - 009

GENERAL PROPERTIES	Unit	Test method	Value	Polyethersulfone
TECHNICAL DATA SHEET				
CTE Material name: LONBEL® PES POLY ETHER SULFONE		APPLICATIONS Medical engineering, electrical industry and food processing industry		CHARACTERISTICS Flame retardant and self-extinguishyn Very high dimensional stability Microwaveable
Options: n.t.= Not tested				
GENERAL PROPERTIES	Unit	Test method	Value	Polyethersulfone
Density	g/cm ³	DIN EN ISO 1183-1		1,37
Water absorption	%	DIN EN ISO 62		0,7
Flammability		UL 94		V0 / V0
MECHANICAL PROPERTIES				
Yield stress	Mpa	DIN EN ISO 527		90
Elongation at break	%	DIN EN ISO 527		15
Tensile modulus of elasticity	Mpa	DIN EN ISO 527		2700
Notched impact strength	kJ/m ²	DIN EN ISO 179		7
Shore hardness	scale D	DIN EN ISO 868		85
Rockwell hardness	scale R	DIN EN ISO 2039-2		n.t.
THERMAL PROPERTIES				
Thermal conductivity	W/(m*K)	DIN 52612-1		1,18
Thermal capacity	KJ/(kg*K)	DIN 52612		1,1
Coefficient of linear thermal expansion	10 ⁻⁶ /K	DIN 53752		55
Service temperature long term	°C	Average		-50 / 180
Service temperature short term max.	°C	Average		220
Vicat softening temperature	°C	DIN EN ISO 306, Vicat B		n.t.
Heat deflection temperature	°C	DIN EN ISO 75, Verf. A, HDT		200
Crystalline grain melting range	°C	ISO 11357-3		n.t.
ELECTRICAL PROPERTIES				
Volume resistivity	Ω	DIN EN 61340		n.t.
Surface resistivity	Ω	DIN EN 61340		n.t.
Volume resistivity	Ω * cm	IEC 60093		10 ¹⁸
Surface resistivity	Ω	IEC 60093		10 ¹⁴
Dielectric constant		IEC 60250		3,9
Dielectric dissipation factor (50 Hz)		IEC 60250		0,002
Comparative tracking index		IEC 60112		150
Dielectric strength	Kv/mm	IEC 60243		25