

M - 008

<b>TECHNICAL DATA SHEET</b>		<b>APPLICATIONS</b>	<b>CHARACTERISTICS</b>			
<b>CTE Material name: LONBEL® PEEK-4</b> <b>POLY ETHER ETHER KETONE "4"</b>  <b>Options:</b> Industry, food or seals  n.t.= Not tested		Food, medical, electrical and aviation industry and seals, oil and gas industries	Flame retardant and self-extinguishing Excelent dimensional stability Suitable for contact with foodstuffs according to EC 1935/2004 Low smoke density			
<b>GENERAL PROPERTIES</b>		<b>Unit</b>	<b>Test method</b>	<b>Value</b>		
				<b>Food</b>	<b>Industry</b>	<b>Seals</b>
Density	g/cm <sup>3</sup>	DIN EN ISO 1183-1		1,31	1,31	1,42
Water absorption	%	DIN EN ISO 62		0,2	0,2	0,1
Flammability		UL 94		V0 / V0	V0 / V0	V0 / V0
<b>MECHANICAL PROPERTIES</b>						
Yield stress	Mpa	DIN EN ISO 527		110	110	140
Elongation at break	%	DIN EN ISO 527		20	20	3
Tensile modulus of elasticity	Mpa	DIN EN ISO 527		4000	4000	10000
Notched impact strength	kJ/m <sup>2</sup>	DIN EN ISO 179		n.t.	n.t.	2
Shore hardness	scale D	DIN EN ISO 868		88	88	90
Rockwell hardness	scale R	DIN EN ISO 2039-2		n.t.	n.t.	n.t.
<b>THERMAL PROPERTIES</b>						
Thermal conductivity	W/(m*K)	DIN 52612-1		0,25	0,25	0,92
Thermal capacity	KJ/(kg*K)	DIN 52612		1,34	1,34	n.t.
Coefficient of linear thermal expansion	10 <sup>-6</sup> /K	DIN 53752		50	50	25
Service temperature long term	°C	Average		-60 / 250	-60 / 250	-60 / 250
Service temperature short term max.	°C	Average		310	310	310
Vicat softening temperature	°C	DIN EN ISO 306, Vicat B		n.t.	n.t.	n.t.
Heat deflection temperature	°C	DIN EN ISO 75, Verf. A, HDT		150	150	n.t.
Crystalline grain melting range	°C	ISO 11357-3		343	343	343
<b>ELECTRICAL PROPERTIES</b>						
Volume resistivity	Ω	DIN EN 61340		n.t.	n.t.	n.t.
Surface resistivity	Ω	DIN EN 61340		n.t.	n.t.	n.t.
Volume resistivity	Ω * cm	IEC 60093		4,9 * 10 <sup>16</sup>	4,9 * 10 <sup>16</sup>	≤ 10 <sup>5</sup>
Surface resistivity	Ω	IEC 60093		10 <sup>18</sup>	10 <sup>18</sup>	≤ 10 <sup>5</sup>
Dielectric constant		IEC 60250		3,2	3,2	n.t.
Dielectric dissipation factor (50 Hz)		IEC 60250		0,001	0,001	n.t.
Comparative tracking index		IEC 60112		n.t.	n.t.	n.t.
Dielectric strength	Kv/mm	IEC 60243		20	20	n.t.