

# Technical Data Sheet

## POLSER PA 6E



### I. Physical Properties

	Test method	Unit	Value
1. Specific gravity	ISO 1183	g/cm <sup>3</sup>	1,13
2. Water absorption	ISO 62	%	3 / 9,5
3. Maximum permissible service temp. (no stronger mechanical stress involved)	-		-
Upper temperature limit	-	°C	130*/100**
Lower temperature limit	-	°C	-40

### II. Mechanical Properties

	Test method	Unit	Value
1. Tensile strength at yield	ISO 527	MPa	70
2. Elongation at yield.	ISO 527	%	-
3. Tensile strength at break	ISO 527	MPa	-
4. Elongation at break	ISO 527	%	>= 50
5. Impact strength	ISO 179	kJ/m <sup>2</sup>	no break
6. Notch impact strength	ISO 179	kJ/m <sup>2</sup>	- / no break
7. Ball indentation / Rockwell hardness	ISO 2039-1	MPa	159
8. Shore-D	DIN 53505		-
9. Flexural strength	ISO 178	MPa	-
10. Modulus of elasticity	ISO 527	MPa	3000 / 1800

### III. Thermal Properties

	Test method	Unit	Value	
1. Vicat-softening point	VST/B/50	ISO 306	°C	-
	VST/A/50		°C	204
2. Heat deflection temperature	HDT/B	ISO 75	°C	190
	HDT/A		°C	75
3. Coefficient of linear thermal expansion	DIN 53752	K <sup>-1</sup> *10 <sup>-4</sup>		0,8
4. Thermal conductivity at 20 °C		W/(m*K)		0,23

### IV. Electrical Properties

	Test method	Unit	Value
1. Volume resistivity	VDE 0303	Ω*cm	>= 10 <sup>13</sup> / >= 10 <sup>10</sup>
2. Surface resistivity		Ω	>= 10 <sup>12</sup> / -
3. Dielectric constant at 1MHz		-	3,7 / 7
4. Dielectric loss factor at 1 MHz	DIN 53483	-	0,031 / 0,3
5. Dielectric strength	VDE 0303	kV/mm	50 / 20
6. Tracking resistance	IEC 60112	-	CTI 600

### V. Additional Data

	Test method	Unit	Value
1. Bond ability		-	+
2. Friction coefficient	DIN 53375	-	0,38-0,45
3. Flammability	UL 94	-	HB
4. UV stabilization	-	-	-

All values are characteristics of the used raw materials. (\* = Short period, \*\* = Long period)

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