Technical Data Sheet
GEHR POM-C

I. Physical Properties

	Test method	Unit	Value
1. Specific gravity (ρ)	ISO 1183	g/cm³	1,39
2. Water absorption	ISO 62	%	0,2
3. Maximum permissible service temp	-	-	-
(no stronger mechanical stress involved)			
Upper temperature limit	-	°C	110
Lower temperature limit	-	°C	-

II. Mechanical Properties

	Test method	Unit	Value
1. Tensile strength at yield	ISO 527	MPa	63
2. Elongation at yield. (ε_S)	ISO 527	%	10
3. Tensile strength at break (σ_R)	ISO 527	MPa	-
4. Elongation at break (ε_R)	ISO 527	%	31
5. Impact strength (a_n)	ISO 179	kJ/m²	no break
6. Notch impact strength (a_k)	ISO 179	kJ/m²	6
7. Ball indentation / Rockwell hardness	ISO 2039-1	MPa	125
8. Shore-D	DIN 53505		-
9. Flexural strength ($\sigma_{B\ 3,5\ \%}$)	ISO 178	MPa	-
10. Modulus of elasticity (E_t)	ISO 527	MPa	2600

III. Thermal Properties

		Test method	Unit	Value
1. Vicat-softening point	VST/B/50	ISO 306	°C	150
	VST/A/50	ISO 306	°C	-
2. Heat deflection temperature	HDT/B	ISO 75	°C	155
	HDT/A	ISO 75	°C	95
3. Coefficient of linear thermal expansion α		DIN 53752	$K^{-1}*10^{-4}$	1,2
4. Thermal conductivity at 20 °C (λ)		DIN 52612	W/(m∗K)	-

IV. Electrical Properties

	Test method	Unit	Value
1. Volume resistivity	VDE 0303	Ω∗cm	$\geq 10^{13}$
2. Surface resistivity (R_o)	VDE 0303	Ω	$\geq 10^{13}$
3. Dielectric constant at 1MHz (ε_r)	DIN 53483	-	3,8
4. Dielectric loss factor at 1 MHz (tanδ)	DIN 53483	-	0,005
5. Dielectric strength	VDE 0303	kV/mm	40
6. Tracking resistance	IEC 60122	-	CTI 600

V. Additional Data

	Test method	Unit	Value
1. Bond ability	-	-	-
2. Friction coefficient	DIN 53375	-	0,35
3. Flammability	UL 94	-	HB
4. UV stabilisation	-	-	-

All values are attributes of the used raw materials.

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