

PE Hollow Rod - Technical Data Sheet



the people for plastics

I. Physical Properties			
	Test method	Unit	Value
Specific gravity (ρ)	ISO 1183	g/cm ³	0,95
Water absorption	ISO 62	%	0,01
Maximum permissible service temp (no stronger mechanical stress involved)	-	-	DIN 8075
Upper temperature limit	-	°C	90
Lower temperature limit	-	°C	50

II. Mechanical Properties			
	Test method	Unit	Value
Tensile strength at yield	ISO 527	MPa	27
Elongation at yield. (ϵ_s)	ISO 527	%	9
Tensile strength at break (σ_R)	ISO 527	MPa	35
Elongation at break (ϵ_R)	ISO 527	%	≥700
Impact strength (a_n)	ISO 179	kJ/m ²	no break
Notch impact strength (a_k)	ISO 179	kJ/m ²	29
Ball indentation / Rockwell hardness	ISO 2039-1	MPa	-
ShoreD	DIN 53505		64
Flexural strength ($\sigma_{B 3,5\%}$)	ISO 178	MPa	22
Modulus of elasticity (E_t)	ISO 527	MPa	1150

III. Thermal Properties			
	Test method	Unit	Value
Vicat-softening point VST/B/50	ISO 306	°C	80
VST/A/50	ISO 306	°C	129
Heat deflection temperature HDT/B	ISO 75	°C	69
HDT/A	ISO 75	°C	-
Coefficient of linear thermal expansion α	DIN 53752	K ⁻¹ *10 ⁴	1,5
Thermal conductivity at 20 °C (λ)	DIN 52612	W/(m*K)	0,42

IV. Electrical Properties			
	Test method	Unit	Value
1. Volume resistivity	VDE 0303	Ω *cm	≥10 ¹⁵
2. Surface resistivity (R_o)	VDE 0303	Ω	≥10 ¹⁶
3. Dielectric constant at 1MHz (ϵ_r)	DIN 53483	-	2,35
4. Dielectric loss factor at 1 MHz ($\tan\delta$)	DIN 53483	-	0,0003
5. Dielectric strength	VDE 0303	kV/mm	17
6. Tracking resistance	IEC 60112	-	-

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

The physical data contained in this table are typical values. They are obtained on test specimens under specific conditions and represent average values of a large number of tests. The results obtained on this tests specimens cannot be applied to finished parts without reservations, as behaviour is influenced by processing and shaping. Reproduction only with our definite permission.