

Engineering Plastics - Acetal

Rod

Properties

Stock		Electrical Properties			
Dia (mm)	Weight (kg/m)	Property	Parameter	Value	Norm
3	0.013	Specific Surface Resistance	Silver electrode, 23°C, 12% r.h.	10 ¹⁴ Ω	DIN
4	0.021				IEC
5	0.032				60093
6	0.046	Specific Volume Resistance	Silver electrode, 23°C, 12% r.h.	10 ¹⁴ Ω*cm	DIN
8	0.080				IEC
10	0.122	Dielectric Strength	23°C, 50% r.h.	38 kV/mm	ISO
12	0.176				60243-1
14	0.237	Resistance to Tracking (CTI)	Plain electrode, 23°C, 50% r.h., solvent A	600 V	DIN
15	0.271				EN
16	0.308				60112
18	0.387	Mechanical Properties			
20	0.475	Property	Parameter	Value	Norm
22	0.577	Modulus of Elasticity (tensile test)	1mm/min	2800 MPa	DIN EN ISO
25	0.740				527-2
28	0.924	Tensile Strength	50mm/min	67 MPa	DIN EN ISO
30	1.06				572-2
32	1.21	Tensile Strength at Yield	50mm/min	67 MPa	DIN EN ISO
36	1.52				527-2
40	1.87	Elongation at Yield	50mm/min	9%	DIN EN ISO
45	2.37				527-2
50	2.91	Elongation at Break	50mm/min	32%	DIN EN ISO
56	3.64				527-2
60	4.20	Flexural Strength	2mm/min, 10N	91 MPa	DIN EN ISO
65	4.91				178
70	5.69	Modulus of Elasticity	2mm/min, 10N	2600 MPa	DIN EN ISO
75	6.56				178
80	7.45	Compression Strength	1% / 2% 5mm/min, 10N	20 / 35 MPa	EN ISO 604
85	8.42				
90	9.43	Compression Modulus	5mm/min, 10N	2300 MPa	EN ISO 604
95	10.53				
100	11.65	Impact Strength (Charpy)	max. 7.5J	150 kJ/m ²	DIN EN ISO
110	14.13				179-1eU
120	16.85	Notched Impact Strength (Charpy)	max 7.5J	6 kJ/m ²	DIN EN ISO
125	18.26				179-1eA
130	19.79	Ball Indentation Hardness		165 MPa	ISO 2039-1
135	21.31				
140	22.89	Other properties			
150	26.30	Property	Parameter	Value	Norm
160	29.90	Water Absorption	24h / 96h (23 °C)	0.05/01 %	DIN EN ISO 62
165	31.90				
180	37.90	Resistance to Hot Water/Bases		(+)	
200	46.70	Resistance to Weathering		(+)	
		Flamability (UL94)	corresponding to	HB	DIN IEC 60695-11-10

210	51.50	Thermal Properties			
230	61.80	Property	Parameter	Value	Norm
250	72.80	Glass Transition Temperature		-60 °C	DIN 53765
		Melting Temperature		166 °C	DIN 53765
		Service Temperature	short term	140 °C	
		Service Temperature	long term	100 °C	
		Thermal Expansion (CLTE)	23-60°C, long	13 10 ⁻⁵ K ⁻¹ 1	DIN EN ISO 11359-1;2
		Thermal Expansion (CLTE)	23-100°C, long	14 10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2
		Specific Heat		1.4 J/(g*K)	ISO 22007-4:2008
		Thermal Conductivity		0.39 W/(K*m)	ISO 22007-4:2008

Disclaimer

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