Technical Data Sheet

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Badaform® C110 TF20

(POM-K+SD20)
Acetal Copolymer injection moulding grade with 20% PTFE

Property	Test Conditions	Test Method	Unit	Typical Value
Mechanical Properties				
Modulus of Elasticity, tensile	23° C, 1 mm/Min	ISO 527-1/2	MPa	2400
Yield Stress [1]	23° C, 50 mm/Min	ISO 527-1/2	MPa	45
Yield Strain [1]	23° C, 50 mm/Min	ISO 527-1/2	%	8
Nominal Stress at Break [1]	23° C, 50 mm/Min	ISO 527-1/2	%	15
Stress at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	MPa	*
Strain at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	%	*
Bending Strength [2]	23° C	ISO 178	MPa	-
Charpy Impact Strength, unnotched [2]	23° C -30° C	ISO 179/1eU ISO 179/1eU	kJ/m² kJ/m²	60 -
Notched Charpy Impact Strength [2]	23° C -30° C	ISO 179/1eA ISO 179/1eA	kJ/m² kJ/m²	3 -
Izod notched Impact Strength [2]	23° C -30° C	ISO 180/1A ISO 180/1A	kJ/m² kJ/m²	4 -
Ball Indention Hardness	358 N	ISO 2039-1	MPa	-
Thermal Properties				
Melt Temperature DSC	10 K / min	ISO 11357-1-3	°C	167
Vicat Softening Temperature [3]	VST/A/50 VST/B/50	ISO 306 ISO 306	°C °C	- -
Heat Deflection Temperature [4]	1,8 MPa	ISO 75-1/2	°C	100
Coefficient of Linear Thermal Expansion [5]	parallel transverse	DIN 53752 DIN 53752	E-4/K E-4/K	1,1 -
Maximum Service Temperature	some hours long term 20 000 h (50 % decrease tens. strength)l	IEC 216	°C °C	100 -
Flammability [6]	0,8 mm 1,6 mm	UL 94	Class	HB HB
Glow Wire Test	2 mm	IEC-60695-2-12	GWFI	-
Electric Properties				
Dielectric Constant [7]	1 MHz	IEC 250	-	3,7
Dissipation factor [7]	1 MHz	IEC 250	E-4	105
Volume Resistivity [7]	-	IEC 93	Ohm cm	10^{15}
Surface Resistivity [7]	-	IEC 93	Ohm	10^{15}
Dielectric Strength [7]	2 mm	IEC 243-1	kV/mm	23
Comparative Tracking Index [8]	Solution A	IEC 112	V	600
Other Data				
Water Absorption	23° C, Saturation	ISO 62	%	0,65
Humidity Absorption	23° C, 50 % rel. Hum.	ISO 62	%	0,2
Melt Volume Rate (MVR)	190 °C / 2,16kg	ISO 1133	cm^3/10 min	6
Density	23° C	ISO 1183	g/ccm	1,52
Processing				
Mass Temperature Range	-	-	°C	180 – 230
Tool Surface Temperature	-	-	°C	60 – 120
Drying Temperature	-	-	°C	80
Drying Time	-	-	h	2 – 4