Technical Data Sheet

Badatron® PPS GK30 TF5

PPS – (GK30+SD5)

30% glass beads filled injection moulding grade, lubrified with PTFE, for tribological applications

Eigenschaften	Prüfbedingungen	Prüfnorm	Einheit	Werte
Mechanische Eigenschaften				
Modulus of Elasticity, tensile	23° C, 1 mm/Min	ISO 527-1/2	MPa	10000
Yield Stress [1]	23° C, 50 mm/Min	ISO 527-1/2	MPa	*
Yield Strain [1]	23° C, 50 mm/Min	ISO 527-1/2	%	*
Nominal Stress at Break [1]	23° C, 50 mm/Min	ISO 527-1/2	%	*
Stress at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	MPa	130
Strain at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	%	1
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	28 -
Notched Charpy Impact Strength [2]	23° C -30 °C	ISO 179/1eA ISO 179/1eA	kJ/m2 kJ/m2	2.5 -
Izod notched Impact Strength [2]	23° C -30° C	ISO 180/1A ISO 180/1A	kJ/m2 kJ/m2	- -
Thermal Properties				
Melting Temperature [3]	10 K/Min	ISO 3146	°C	-
Temperature of Deflection under Load [4]	0,45 MPa 1,8 MPa	ISO 75-1/2 ISO 75-1/2	°C °C	- -
Coefficient of Linear Thermal Elongation [5]	parallel direction transverse direction	DIN 53752 DIN 53752	E-4/K E-4/K	- -
Maximum Service Temperature	some hours 20 000 h 50 % Decrease in Tensile Strength or Yield Stress	- IEC 216	°C °C	- -
Flammability [6]	0,8 mm 1,6 mm	UL 94 UL 94	Class Class	- V-0
Glow Wire Test	1,6 mm 1,6 mm	GWIT GWFI	IEC-60695-2-13 IEC-60695-2-12	- 960°C
Electric Properties				
Relative Permittivity [7]	1 MHz	IEC 250	-	-
Dissipation Factor [7]	1 MHz	IEC 250	E-4	-
Specific Volume Resistivity [7]	-	IEC 93	Ohm cm	-
Specific Surface Resistivity [7]	-	IEC 93	Ohm	-
Dielectric Strength [7]	-	IEC 243-1	kV/mm	-
Comparative Tracking Index	-	IEC 112	V	-
Other data				
Water Absorption	23° C, Saturation	ISO 62	%	-
Moisture Absorption	23° C, 50 % r.H.	ISO 62	%	-
Density	23° C	ISO 1183	g/ccm	-
Processing				
Melt Temperature	-	-	°C	300 – 340
Tool Surface Temperature	-	-	°C	140-180
Drying Temperature	-	-	h	140
Drying Time	23° C, 1 mm/Min	ISO 527-1/2	MPa	3-4 h

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