Technical Data Sheet

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Badalon® PC 20 FR HF

>PC-FR<

Polycarbonate Injection moulding grade, halogen-free flame retardant

Properties	Test Conditions	Test Methods	Units	Typical Value
Mechanical Properties				
Modulus, tensile	-	ASTM D 638	MPa	2500
Tensile Yield Strength	-	ASTM D 638	MPa	50
Elongation at Yield	-	ASTM D 638	%	-
Elongation at Break	-	ASTM D 638	%	>50
Stress at Break [1]	-	ASTM D 638	MPa	-
Strain at Break [1]	-	ASTM D 638	%	-
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	>100 -
Notched Charpy Impact Strength [2]	23° C -30° C	ISO 179/1eA ISO 179/1eA	kJ/m2 kJ/m2	7
Izod notched Impact Strength [2]	23° C -30° C	ISO 180/1A ISO 180/1A	kJ/m2 kJ/m2	-
Thermische Eigenschaften				
melting temperature		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	135 -
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]	1,5 mm 3,0 mm	UL 94 UL 94	Class Class	V-0 V-0
Glow Wire Test	2 mm 2 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	10^{14}
Specific Surface Resistivity [7]	-	IEC 93	Ohm	10^{15}
Dielectric Strength [7]	-	IEC 243-1	kV/mm	20
Comparative Tracking Index	-	IEC 112	V	175
Other data				
Water Absorption	23° C, Saturation	ISO 62	%	-
Moisture Absorption	23° C, 50 % r.H.	ISO 62	%	0,24
Melt Flow Rate	300°C, 1,2kg	ASTM D 1238	g/10min	19
Density	23° C	ISO 1183	g/cm³	1,2-1,4
Processing				
Melt Temperature	-	-	°C	270-310
Tool Surface Temperature	-	-	°C	70-90
Drying Temperature	-	-	°C	120
Drying Time	-	-	h	3-4