

Technical Data Sheet

Grilon BZ 1

(former: B 70 L)

Properties

Mechanical properties		ISO-Nomenclature PA 6-Hi, MHR, 14-020N			
Density		ISO 1183	g/cm ³	dry	1,10
Tensile-E-Modulus	(1 mm/min)	ISO 527	MPa	dry	2400
		ISO 527	MPa	cond	900
Tensile strength at yield	(50 mm/min)	ISO 527	MPa	dry	65
		ISO 527	MPa	cond	40
Elongation at yield	(50 mm/min)	ISO 527	%	dry	4
		ISO 527	%	cond	15
Stress at break	(50 mm/min)	ISO 527	MPa	dry	*
		ISO 527	MPa	cond	*
Strain at break	(50 mm/min)	ISO 527	%	dry	25
		ISO 527	%	cond	>50
Impact strength	(Charpy, 23°C)	ISO 179/1eU	kJ/m ²	dry	>100
		ISO 179/1eU	kJ/m ²	cond	>100
Impact strength	(Charpy, -30°C)	ISO 179/1eU	kJ/m ²	dry	>100
		ISO 179/1eU	kJ/m ²	cond	>100
Notched impact strength	(Charpy, 23°C)	ISO 179/1eA	kJ/m ²	dry	10
		ISO 179/1eA	kJ/m ²	cond	30
Notched impact strength	(Charpy, -30°C)	ISO 179/1eA	kJ/m ²	dry	8
		ISO 179/1eA	kJ/m ²	cond	5
Ball indentation hardness		ISO 2039-1	MPa	dry	110
		ISO 2039-1	MPa	cond	50
Thermal properties					
Melting point	(DSC)	ISO 11357	°C	dry	222
Heat deflection temperature HDT/A	(1.80 MPa)	ISO 75	°C	dry	55
Heat deflection temperature HDT/B	(0.45 MPa)	ISO 75	°C	dry	160
Heat deflection temperature HDT/C	(8.00 MPa)	ISO 75	°C	dry	---
Thermal expansion coefficient long.	(23 - 80°C)	ISO 11359	10 ⁻⁴ /K	dry	0,9
Thermal expansion coefficient trans.	(23 - 80°C)	ISO 11359	10 ⁻⁴ /K	dry	1,2
Maximal usage temperature	long term	EMS	°C	dry	70-90
Maximal usage temperature	short term	EMS	°C	dry	160
Electrical properties					
Dielectric strength	K20/P50	IEC 243-1	kV/mm	dry	33
		IEC 243-1	kV/mm	cond	30
Comparative tracking index	CTI	IEC 112	---	dry	600
		IEC 112	---	cond	600
Volume resistivity		IEC 93	Ω*m	dry	10 ¹²
		IEC 93	Ω*m	cond	10 ¹⁰
Specific surface resistivity		IEC 93	Ω	dry	*
		IEC 93	Ω	cond	10 ¹²
Behaviour towards external influences					
Flammability	(0.8mm)	UL 94	rating		HB
Water absorption	(23°C/sat.)	DIN 53495	%		9
Moisture absorption	(23°C/50%r.F.)	i.A. DIN 53495	%		3
Processing properties					
Linear mould shrinkage	long.	ISO 294	%	dry	1,10
Linear mould shrinkage	trans.	ISO 294	%	dry	1,35

The test values <conditioned> were attained on test pieces stored according to ISO 1110.

* acc. CAMPUS 4.1 not relevant

The recommendations and data given are based on our experience to date. No liability can be assumed in connection with their usage and processing.