Technical Data Sheet

Grilon TSGZ-15/4

(former: A 70 GFE 15 H)

Properties

Mechanical properties	**ISO-Nomenclature**	**PA66+PA6-Hi, MHR, 14-060N, GF 15**			
Density		ISO 1183	g/cm^3	dry	1,20
Tensile-E-Modulus	(1 mm/min)	ISO 527	MPa	dry	5800
		ISO 527	MPa	cond	3100
Tensile strength at yield	(50 mm/min)	ISO 527	MPa	dry	---
		ISO 527	MPa	cond	70
Elongation at yield	(50 mm/min)	ISO 527	%	dry	---
		ISO 527	%	cond	5
Tensile at break	(5 mm/min)	ISO 527	MPa	dry	110
		ISO 527	MPa	cond	65
Elongation at break	(5 mm/min)	ISO 527	%	dry	4
		ISO 527	%	cond	10
Impact strength	(Charpy, 23°C)	ISO 179/1eU	kJ/m^2	dry	70
		ISO 179/1eU	kJ/m^2	cond	85
Impact strength	(Charpy, -30°C)	ISO 179/1eU	kJ/m^2	dry	60
		ISO 179/1eU	kJ/m^2	cond	70
Notched impact strength	(Charpy, 23°C)	ISO 179/1eA	kJ/m^2	dry	11
		ISO 179/1eA	kJ/m^2	cond	16
Notched impact strength	(Charpy, -30°C)	ISO 179/1eA	kJ/m^2	dry	5
		ISO 179/1eA	kJ/m^2	cond	5
Ball indentation hardness		ISO 2039-1	MPa	dry	---
		ISO 2039-1	MPa	cond	---
Thermal properties					
Melting point	(DSC)	ISO 11357	°C	dry	260
Heat deflection temperature HDT/A	(1.80 MPa)	ISO 75	°C	dry	225
Heat deflection temperature HDT/B	(0.45 MPa)	ISO 75	°C	dry	---
Heat deflection temperature HDT/C	(8.00 MPa)	ISO 75	°C	dry	65
Thermal expansion coefficient long.	(23 - 80°C)	ISO 11359	10^{-4}/K	dry	0,2
Thermal expansion coefficient trans.	(23 – 80°C)	ISO 11359	10^{-4}/K	dry	1,1
Maximal usage temperature	Long term	EMS	°C	dry	90-120
Maximal usage temperature	Short term	EMS	°C	dry	160
Electrical properties					
Dielectric strength	K20/P50	IEC 243-1	kV/mm	dry	30
		IEC 243-1	kV/mm	cond	27
Comparative tracking index	CTI	IEC 112	---	dry	600
		IEC 112	---	cond	600
Volume resistivity		IEC 93	Ω*m	dry	10^{11}
		IEC 93	Ω*m	cond	10^9
Specific surface resistivity		IEC 93	Ω	dry	---
		IEC 93	Ω	cond	10^{10}
Behaviour towards external influences					
Flammabílity	(0,8mm)	UL 94	rating		HB
Water absorption	(23°C/sat.)	DIN 53495	%		7
Moisture absorption	(23°C/50%r.F.)	i.A. DIN 53495	%		2
Processing properties					
Linear mould shrinkage	long.	ISO 294	%	dry	0,15
Linear mould shrinkage	trans.	ISO 294	%	dry	0,65

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

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

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