

Properties

Mechanical properties		ISO-Nomenclature PA 6, MHR, 18-060N, GB 50			
Density		ISO 1183	g/cm ³	dry	1,55
Tensile-E-Modulus	(1 mm/min)	ISO 527	MPa	dry	6100
		ISO 527	MPa	cond	1700
Tensile strength at yield	(50 mm/min)	ISO 527	MPa	dry	95
		ISO 527	MPa	cond	45
Elongation at yield	(50 mm/min)	ISO 527	%	dry	4
		ISO 527	%	cond	8
Stress at break	(5 mm/min)	ISO 527	MPa	dry	
		ISO 527	MPa	cond	*
Strain at break	(5 mm/min)	ISO 527	%	dry	8
		ISO 527	%	cond	25
Impact strength	(Charpy, 23°C)	ISO 179/1eU	kJ/m ²	dry	60
		ISO 179/1eU	kJ/m ²	cond	---
Impact strength	(Charpy, -30°C)	ISO 179/1eU	kJ/m ²	dry	35
		ISO 179/1eU	kJ/m ²	cond	---
Notched impact strength	(Charpy, 23°C)	ISO 179/1eA	kJ/m ²	dry	4
		ISO 179/1eA	kJ/m ²	cond	4
Notched impact strength	(Charpy, -30°C)	ISO 179/1eA	kJ/m ²	dry	3
		ISO 179/1eA	kJ/m ²	cond	3
Ball indentation hardness		ISO 2039-1	MPa	dry	---
		ISO 2039-1	MPa	cond	---
Thermal properties					
Melting point	(DSC)	ISO 11357	°C	dry	222
Heat deflection temperature HDT/A	(1.80 MPa)	ISO 75	°C	dry	95
Heat deflection temperature HDT/B	(0.45 MPa)	ISO 75	°C	dry	*
Heat deflection temperature HDT/C	(8.00 MPa)	ISO 75	°C	dry	45
Thermal expansion coefficient long.	(23 - 80°C)	ISO 11359	10 ⁻⁴ /K	dry	0,7
Thermal expansion coefficient trans.	(23 – 80°C)	ISO 11359	10 ⁻⁴ /K	dry	0,7
Maximal usage temperature	Long term	EMS	°C	dry	80-110
Maximal usage temperature	Short term	EMS	°C	dry	160
Electrical properties					
Dielectric strength	K20/P50	IEC 243-1	kV/mm	dry	36
		IEC 243-1	kV/mm	cond	29
Comparative tracking index	CTI	IEC 112	---	dry	*
		IEC 112	---	cond	450
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					
Flammability	(0,8mm)	UL 94	rating		HB
Water absorption	(23°C/sat.)	DIN 53495	%		5
Moisture absorption	(23°C/50%r.F.)	i.A. DIN 53495	%		1,5
Processing properties					
Linear mould shrinkage	long.	ISO 294	%	dry	0,70
Linear mould shrinkage	trans.	ISO 294	%	dry	0,75

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.