

## Technical Data Sheet

## Grilon TSS/4 LF 20

(former: A 70 TF 18 Si 2)

## Properties

Mechanical properties		ISO-Nomenclature PA 66+PA 6, MHRs, 14-030N, Z 20			
Density		ISO 1183	g/cm <sup>3</sup>	dry	1,28
Tensile-E-Modulus	(1 mm/min)	ISO 527	MPa	dry	2700
		ISO 527	MPa	cond	1200
Tensile strength at yield	(50 mm/min)	ISO 527	MPa	dry	60
		ISO 527	MPa	cond	35
Elongation at yield	(50 mm/min)	ISO 527	%	dry	4
		ISO 527	%	cond	10
Stress at break	(50 mm/min)	ISO 527	MPa	dry	*
		ISO 527	MPa	cond	*
Strain at break	(50 mm/min)	ISO 527	%	dry	15
		ISO 527	%	cond	>50
Impact strength	(Charpy, 23°C)	ISO 179/1eU	kJ/m <sup>2</sup>	dry	>100
		ISO 179/1eU	kJ/m <sup>2</sup>	cond	>100
Impact strength	(Charpy, -30°C)	ISO 179/1eU	kJ/m <sup>2</sup>	dry	45
		ISO 179/1eU	kJ/m <sup>2</sup>	cond	55
Notched impact strength	(Charpy, 23°C)	ISO 179/1eA	kJ/m <sup>2</sup>	dry	4
		ISO 179/1eA	kJ/m <sup>2</sup>	cond	8
Notched impact strength	(Charpy, -30°C)	ISO 179/1eA	kJ/m <sup>2</sup>	dry	4
		ISO 179/1eA	kJ/m <sup>2</sup>	cond	4
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	85
Heat deflection temperature HDT/B	(0.45 MPa)	ISO 75	°C	dry	*
Heat deflection temperature HDT/C	(8.00 MPa)	ISO 75	°C	dry	64
Thermal expansion coefficient long.	(23 - 80°C)	ISO 11359	10 <sup>-4</sup> /K	dry	0,8
Thermal expansion coefficient trans.	(23 - 80°C)	ISO 11359	10 <sup>-4</sup> /K	dry	0,9
Maximal usage temperature	Long term	EMS	°C	dry	80-110
Maximal usage temperature	Short term	EMS	°C	dry	180
Electrical properties					
Dielectric strength	K20/P50	IEC 243-1	kV/mm	dry	27
		IEC 243-1	kV/mm	cond	25
Comparative tracking index	CTI	IEC 112	---	dry	*
		IEC 112	---	cond	475
Volume resistivity		IEC 93	Ω*m	dry	10 <sup>12</sup>
		IEC 93	Ω*m	cond	10 <sup>10</sup>
Specific surface resistivity		IEC 93	Ω	dry	*
		IEC 93	Ω	cond	10 <sup>11</sup>
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	%		2
Processing properties					
Linear mould shrinkage	long.	ISO 294	%	dry	0,9
Linear mould shrinkage	trans.	ISO 294	%	dry	1,0

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.

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