

Nylon 66 Natural

PA66 (Polyamide 66)

Colour: Natural

Density: 1.15g/cm³

Material Data Sheet

Mechanical Properties	Parameter	Value	Unit	DIN/EN/ISO
Modulus of elasticity (tensile test)	1mm/min	3500	MPa	527-2
Tensile strength	50mm/min	85	MPa	527-2
Tensile strength at yield	50mm/min	84	MPa	527-2
Elongation at Yield	50mm/min	7	%	527-2
Elongation at break	50mm/min	70	%	527-2
Flexural strength	2mm/min 10N	110	MPa	178
Modulus of elasticity (flexural test)	2mm/min 10N	3100	MPa	178
Compression Strength	1%/2% 5mm/min 10N	20/35	MPa	604
Compression modulus	5mm/min 10N	2700	MPa	604
Impact strength (Charpy)	Max. 7,5J	N.B.	kJ/m ²	179-1eU
Notched impact strength (Charpy)	Max. 7,5J	5	kJ/m ²	179-1eA
Ball indentation hardness	-	175	MPa	2039-1

Thermal Properties	Parameter	Value	Unit	DIN/EN/ISO
Glass transition temperature	-	47	°C	53765
Melting temperature	-	258	°C	53765
Service temperature	Short term	170	°C	-
Service temperature	Long term	100	°C	-
Thermal expansion (CLTE)	23-60°C, Long	11	10 ⁻⁵ K ⁻¹	11359-1;2
Thermal expansion (CLTE)	23-100°C, Long	12	10 ⁻⁵ K ⁻¹	11359-1;2
Specific heat	-	1.5	J/(g*K)	22007-4:2008
Thermal conductivity	-	0.36	W/(K*m)	22007-4:2008

Electrical properties	Parameter	Value	Unit	DIN/IEC
Surface resistance	-	10 ¹⁴	Ω	60093

Other properties	Parameter	Value	Unit	DIN/EN/ISO/IEC
Water absorption	24h/96h (23°C)	0.2/0.4	%	62
Resistance to hot water/bases	-	(+)	-	-
Resistance to weathering	-	-	-	-
Flammability (UL94)	Corresponding to	HB	-	60695-11-10



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The following information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed. A definitive quality guarantee is given in our general conditions of sales.

Unless otherwise stated, these values represent averages taken from injection moulding samples.

We reserve the right of technical alterations.

Nylon 66 Black

PA66 (Polyamide 66)

Filler: Molybdenum disulfide

Colour: Black

Density: 1.15g/cm³

Material Data Sheet

Mechanical Properties	Parameter	Value	Unit	DIN/EN/ISO
Modulus of elasticity (tensile test)	1mm/min	3200	MPa	527-2
Tensile strength	50mm/min	84	MPa	527-2
Tensile strength at yield	50mm/min	83	MPa	527-2
Elongation at Yield	50mm/min	10	%	527-2
Elongation at break	50mm/min	40	%	527-2
Flexural strength	2mm/min 10N	114	MPa	178
Modulus of elasticity (flexural test)	2mm/min 10N	3100	MPa	178
Compression Strength	1%/2% 5mm/min 10N	20/38	MPa	604
Compression modulus	5mm/min 10N	2700	MPa	604
Impact strength (Charpy)	Max. 7,5J	N.B.	kJ/m ²	179-1eU
Notched impact strength (Charpy)	Max. 7,5J	5	kJ/m ²	179-1eA
Ball indentation hardness	-	168	MPa	2039-1

Thermal Properties	Parameter	Value	Unit	DIN/EN/ISO
Glass transition temperature	-	52	°C	53765
Melting temperature	-	253	°C	53765
Service temperature	Short term	170	°C	-
Service temperature	Long term	100	°C	-
Thermal expansion (CLTE)	23-60°C, Long	10	10 ⁻⁵ K ⁻¹	11359-1;2
Thermal expansion (CLTE)	23-100°C, Long	10	10 ⁻⁵ K ⁻¹	11359-1;2
Specific heat	-	1.5	J/(g*K)	22007-4:2008
Thermal conductivity	-	0.36	W/(K*m)	22007-4:2008

Electrical Properties	Parameter	Value	Unit	DIN/IEC
Surface resistance	-	10 ¹²	Ω	60093

Other Properties	Parameter	Value	Unit	DIN/EN/ISO/IEC
Water absorption	24h/96h (23°C)	0.2/0.4	%	62
Resistance to hot water/bases	-	(+)	-	-
Resistance to weathering	-	(+)	-	-
Flammability (UL94)	Corresponding to	HB	-	60695-11-10



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