

Product Texts

PA 66, non-reinforced, injection moulding
ISO Shortname: ISO 1874-PA 66,GHR,14-040

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.9 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.2 / *	%	ISO 294-4, 2577
Density of melt	970	kg/m ³	-
Thermal conductivity of melt	0.225	W/(m K)	-
Spec. heat capacity of melt	2900	J/(kg K)	-
Eff. thermal diffusivity	8E-8	m ² /s	-
Ejection temperature	185	°C	-

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	3600 / 1600	MPa	ISO 527
Yield stress	95 / 60	MPa	ISO 527
Yield strain	4.5 / 18	%	ISO 527
Charpy impact strength, +23°C	150 / N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	100 / 150	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	10 / 12	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	10 / 10	kJ/m ²	ISO 179/1eA
Puncture - maximum force, +23°C	5400 / 4600	N	ISO 6603-2
Puncture - maximum force, -30°C	6100 / -	N	ISO 6603-2
Puncture energy, +23°C	30 / 27	J	ISO 6603-2
Puncture energy, -30°C	26 / -	J	ISO 6603-2

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	263 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	75 / *	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	214 / *	°C	ISO 75-1/-2
Vicat softening temperature, B	230 / *	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	-
Burning behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	3.2 / *	mm	-
Oxygen index	26 / *	%	ISO 4589-1/-2

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.8 / 10	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.4 / 4	-	IEC 62631-2-1
Dissipation factor, 100Hz	60 / 1400	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	180 / 700	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E14	Ohm	IEC 62631-3-2
Electric strength	30 / 30	kV/mm	IEC 60243-1
Comparative tracking index	575 / -	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	8.5 / *	%	Sim. to ISO 62
Humidity absorption	2.8 / *	%	Sim. to ISO 62
Density	1140 / -	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			

Durethan® A30S

PA66

Envalior

Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

Characteristics**Processing**

Injection Molding

Additives

Release agent

Delivery form

Pellets

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information**Injection Molding**

PREPROCESSING

Max. Water content: 0.1 %

Drying temperature: 80 °C

Drying time:

Dry air dryer 2-20 h (will depend on the initial moisture content)

PROCESSING

Melt temperature: 280 - 300 °C

Mold temperature: 80 - 100 °C