

**Product Texts**

Injection Molding, Unreinforced, Food Contact Quality

ISO 1043 PA6

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Molding shrinkage, parallel	1.0 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.2 / *	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	3200 / 1000	MPa	ISO 527
<sup>[C]</sup> Yield stress	80 / 40	MPa	ISO 527
<sup>[C]</sup> Yield strain	4 / 20	%	ISO 527
<sup>[C]</sup> Nominal strain at break	20 / >50	%	ISO 527
Flexural modulus, 23°C	2900 / 850	MPa	ISO 178
Flexural strength	110 / 35	MPa	ISO 178
<sup>[C]</sup> Tensile creep modulus, 1h	* / 800	MPa	ISO 899-1
<sup>[C]</sup> Tensile creep modulus, 1000h	* / 600	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	- / 20	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	- / 10	kJ/m <sup>2</sup>	ISO 179/1eA
Izod impact strength, +23°C	N / N	kJ/m <sup>2</sup>	ISO 180/1U
Izod notched impact strength, +23°C	10 / 10	kJ/m <sup>2</sup>	ISO 180/1A
<sup>[C]</sup> Puncture - maximum force, +23°C	5140 / -	N	ISO 6603-2
<sup>[C]</sup> Puncture - maximum force, -30°C	6540 / -	N	ISO 6603-2
<sup>[C]</sup> Puncture energy, +23°C	12 / -	J	ISO 6603-2
<sup>[C]</sup> Puncture energy, -30°C	10 / -	J	ISO 6603-2
Ball indentation hardness	140 / 50	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	222 / *	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	55 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	160 / *	°C	ISO 75-1/-2
Vicat softening temperature, B	200 / *	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	100 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	110 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Burning behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	-
<sup>[C]</sup> Oxygen index	26 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	750	°C	IEC 60695-2-12

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Relative permittivity, 100Hz	4 / 15	-	IEC 62631-2-1
<sup>[C]</sup> Relative permittivity, 1MHz	3.5 / 4	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 100Hz	170 / 2000	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	200 / 1200	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	30 / 30	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	600 / -	-	IEC 60112

[C]: CAMPUS

**Durethan® B30SF 000000**

PA6

Envalior

Other properties	dry / cond	Unit	Test Standard
<sup>[C]</sup> Water absorption	10 / *	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	3 / *	%	Sim. to ISO 62
<sup>[C]</sup> Density	1140 / -	kg/m <sup>3</sup>	ISO 1183
Bulk density	700	kg/m <sup>3</sup>	-

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Viscosity number	134 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Injection Molding, melt temperature	270	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	260 - 280	°C	-
Mold temperature	80 - 100	°C	-

**Characteristics****Processing**

Injection Molding

**Certifications**

Food contact

**Delivery form**

Pellets

**Regional Availability**

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

**Other text information****Injection molding****PREPROCESSING**

Residual moisture content: 0.03 - 0.12%

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

**PROCESSING**

Melt temperature (Tmin - Tmax): 260 - 280 °C

Mold temperature: 80 - 100 °C