

**Durethan® BLUEB31F 000000**  
**PA6**

Envalior

Film Extrusion, Unreinforced, Extrusion, Food Contact Quality, Low Viscosity, no additives

ISO 1043 PA6

Mechanical Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	2800 / 800	MPa	ISO 527
Yield stress	75 / 35	MPa	ISO 527
Yield strain	4 / 25	%	ISO 527
Nominal strain at break	20 / >50	%	ISO 527
Impact Strength (Charpy), +23°C	no break / no break	kJ/m <sup>2</sup>	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break / 55	kJ/m <sup>2</sup>	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	5 / 50	kJ/m <sup>2</sup>	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	5 / -	kJ/m <sup>2</sup>	ISO 179/1eA

Thermal Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Melting Temperature (10°C/min)	222 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	50 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	150 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	80 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	80 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	-
Oxygen index	24 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Relative permittivity, 100Hz	3.9 / 18	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.5 / 4	-	IEC 62631-2-1
Volume Resistivity	1E12 / 1E10	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric Strength	30 / 35	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Water Absorption	10 / *	%	Sim. to ISO 62
Humidity absorption	3 / *	%	Sim. to ISO 62
Density	1140 / -	kg/m <sup>3</sup>	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Viscosity number	155 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	40	°C	ISO 294

**Characteristics**
**Processing**

Film Extrusion, Other Extrusion, Coating

**Certifications**

Recycled Resin Content, Food approval

**Delivery form**

Pellets

**Applications**

Monofilament, Multifilament

**Injection Molding**

PREPROCESSING

Residual moisture content: 0.03 - 0.12%

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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

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