

Envalior Durethan® B 40 FAM 000000 Nylon 6 (PA6), Conditioned**Categories:** [Polymer](#); [Thermoplastic](#); [Nylon \(Polyamide PA\)](#); [Nylon 6 \(PA6\)](#); [Nylon 6, Unreinforced](#)

Material Notes: PA 6 film grade of high viscosity with high slip agent and lubricant content, not nucleated

Application Examples: flat and blown film with good surface slip and smoothness - including in the freshly extruded state, synthetic sausage casings, shrink bags, monofilaments

Former Lanxess product line is now with Envalior.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	3.0 %	3.0 %	50% RH; ISO 62
Water Absorption at Saturation	10 %	10 %	ISO 62
Melt Flow	3.0 g/10 min @Load 2.16 kg, Temperature 235 °C	3.0 g/10 min @Load 4.76 lb, Temperature 455 °F	ISO 1133-1

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	40.0 MPa	5800 psi	ISO 2093-1
Tensile Strength, Yield	35.0 MPa	5080 psi	50 mm/min; ISO 527-1,-2
Elongation at Break	>= 50 %	>= 50 %	50 mm/min, Nominal; ISO 527-1,-2
Elongation at Yield	25 %	25 %	50 mm/min; ISO 527-1,-2
Tensile Modulus	0.800 GPa	116 ksi	1 mm/min; ISO 527-1,-2
Flexural Yield Strength	20.0 MPa @Strain 3.5 %	2900 psi @Strain 3.5 %	2 mm/min; ISO 178-A
Flexural Modulus	0.700 GPa	102 ksi	2 mm/min; ISO 178-A
Flexural Strain at Break	8.0 %	8.0 %	2 mm/min; ISO 178-A
Izod Impact, Notched (ISO)	7.50 kJ/m ² @Temperature -30.0 °C	3.57 ft-lb/in ² @Temperature -22.0 °F	ISO 180-1A
Izod Impact, Unnotched (ISO)	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 180-1U
Charpy Impact Unnotched 	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179-1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179-1eU
Charpy Impact, Notched 	0.500 J/cm ² @Temperature -30.0 °C	2.38 ft-lb/in ² @Temperature -22.0 °F	ISO 179 1eA
	5.00 J/cm ² @Temperature 23.0 °C	23.8 ft-lb/in ² @Temperature 73.4 °F	ISO 179 1eA

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	IEC 60093
Dielectric Constant 	4.0 @Frequency 1e+6 Hz	4.0 @Frequency 1e+6 Hz	IEC 60250
	18 @Frequency 100 Hz	18 @Frequency 100 Hz	IEC 60250
Dielectric Strength	35.0 kV/mm @Thickness 1.00 mm	889 kV/in @Thickness 0.0394 in	IEC 60243-1

Thermal Properties	Metric	English	Comments
Melting Point	222 °C	432 °F	10°C/min (Dry); ISO 11357-1,-3

Processing Properties	Metric	English	Comments
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Melt Temperature	260 °C	500 °F	injection molding
Mold Temperature	40.0 °C	104 °F	injection molding

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.