

## Lanxess Durethan® B 40 FA 000000 Nylon 6, Film Grade

Category : Polymer , Film , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Film Grade

### Material Notes:

PA 6, film grade of high viscosity, lubricated, not nucleated, in compliance with FDA for food contact and acc. the German BgVV

Recommendation XLIV, Section VI.A" Synthetic casings in polyamide"Application Examples: single blown and cast film, sausage casings made by double bubble stretching process

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lanxess-Durethan-B-40-FA-000000-Nylon-6-Film-Grade.php](http://www.lookpolymers.com/polymer_Lanxess-Durethan-B-40-FA-000000-Nylon-6-Film-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in <sup>3</sup>	ISO 1183
Water Absorption	10 %	10 %	Test Sim. to ISO 62
Moisture Absorption at Equilibrium	3.0 %	3.0 %	23 <sup>o</sup> C/50% R.H.; Test Sim. to ISO 62
Melt Flow	3 g/10 min @Load 2.16 kg, Temperature 235 <sup>o</sup> C	3 g/10 min @Load 4.76 lb, Temperature 455 <sup>o</sup> F	Estimated using room temperature density; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	35.0 MPa	5080 psi	Conditioned; ISO 527-1/-2
	75.0 MPa	10900 psi	ISO 527-1/-2
Elongation at Break	20 %	20 %	Nominal; ISO 527-1/-2
	>= 50 %	>= 50 %	Nominal, Conditioned; ISO 527-1/-2
Elongation at Yield	4.0 %	4.0 %	ISO 527-1/-2
	25 %	25 %	Conditioned; ISO 527-1/-2
Tensile Modulus	0.800 GPa	116 ksi	Conditioned; ISO 527-1/-2
	2.80 GPa	406 ksi	ISO 527-1/-2
Charpy Impact Unnotched	NB @Temperature -30.0 <sup>o</sup> C	NB @Temperature -22.0 <sup>o</sup> F	ISO 179/1eU
	NB @Temperature -30.0 <sup>o</sup> C	NB @Temperature -22.0 <sup>o</sup> F	Conditioned; ISO 179/1eU
	NB	NB	

Mechanical Properties	Metric @Temperature 23.0 °C	English @Temperature 73.4 °F	ISO 179/1eU Comments
	NB	NB	Conditioned; ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	0.500 J/cm <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	0.500 J/cm <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	Conditioned; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	0.500 J/cm <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	5.00 J/cm <sup>2</sup>	23.8 ft-lb/in <sup>2</sup>	Conditioned; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	80.0 µm/m-°C	44.4 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	80.0 µm/m-°C	44.4 µin/in-°F	ISO 11359-1/-2
Melting Point	222 °C	432 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	150 °C	302 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	50.0 °C	122 °F	ISO 75-1/-2
Deflection Temperature at 8.0 MPa	40.0 °C	104 °F	ISO 75-1/-2
Flammability, UL94	HB	HB	IEC 60695-11-10
	HB	HB	IEC 60695-11-10
	@Thickness 0.800 mm	@Thickness 0.0315 in	
Oxygen Index	24 %	24 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	Conditioned; IEC 60093
	1.00e+14 ohm-cm	1.00e+14 ohm-cm	IEC 60093
Surface Resistance			IEC 60093

Electrical Properties	1.00e+13 ohm Metric	1.00e+13 ohm English	Comments
Dielectric Constant	3.5	3.5	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.9	3.9	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	4.0	4.0	Conditioned; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	18	18	Conditioned; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	30.0 kV/mm	762 kV/in	IEC 60243-1
	35.0 kV/mm	889 kV/in	Conditioned; IEC 60243-1
Comparative Tracking Index	600 V	600 V	IEC 60112

Descriptive Properties	Value	Comments
Form	Pellets	
ISO Shortname	ISO 1874: PA 6, FS,22,-030	
Processing	Film extrusion	
Region	Asia Pacific	
	Europe	
	Near East/Africa	
	North America	
	South and Central America	

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