

## Lanxess Durethan® BM 240 H3.0 000000 Nylon 6, 40% Mineral

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 40% Mineral Filled

### Material Notes:

PA 6, 40% mineral, injection molding, heat-ageing stabilized, low tendency to warp, isotopic properties

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lanxess-Durethan-BM-240-H30-000000-Nylon-6-40-Mineral.php](http://www.lookpolymers.com/polymer_Lanxess-Durethan-BM-240-H30-000000-Nylon-6-40-Mineral.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.45 g/cc	1.45 g/cc	ISO 1183
Bulk Density	0.700 g/cc	0.0253 lb/in <sup>3</sup>	ISO 60
Moisture Absorption at Equilibrium	1.9 %	1.9 %	50% RH; ISO 62
Water Absorption at Saturation	6.0 %	6.0 %	ISO 62
Linear Mold Shrinkage, Flow	0.0080 cm/cm @Thickness 2.00 mm	0.0080 in/in @Thickness 0.0787 in	Mold Temp 80°C; Melt Temp 280°C; 600 bar; ISO 294-4
Linear Mold Shrinkage, Transverse	0.0080 cm/cm @Thickness 2.00 mm	0.0080 in/in @Thickness 0.0787 in	Mold Temp 80°C; Melt Temp 280°C; 600 bar; ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	55.0 MPa	7980 psi	Conditioned; ISO 527-1,-2
	85.0 MPa	12300 psi	ISO 527-1,-2
Elongation at Break	6.0 %	6.0 %	ISO 527-1,-2
	40 %	40 %	Conditioned; ISO 527-1,-2
Tensile Modulus	2.20 GPa	319 ksi	Conditioned; ISO 527-1,-2
	5.80 GPa	841 ksi	ISO 527-1,-2
Flexural Strength	65.0 MPa @Strain 8.00 %	9430 psi @Strain 8.00 %	Conditioned; ISO 178
	130 MPa @Strain 5.50 %	18900 psi @Strain 5.50 %	ISO 178
Flexural Yield Strength	60.0 MPa @Strain 3.50 %	8700 psi @Strain 3.50 %	Conditioned; ISO 178
	140 MPa	20300 psi	ISO 178

Mechanical Properties	@Strain 3.50 % Metric	@Strain 3.50 % English	Comments
Flexural Modulus	2.00 GPa	290 ksi	Conditioned; ISO 178
	5.50 GPa	798 ksi	ISO 178
Izod Impact, Notched (ISO)	<= 10.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	<= 4.76 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 180-1A
	<= 10.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	<= 4.76 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	Conditioned; ISO 180-1A
	<= 10.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	<= 4.76 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 180-1A
	<= 10.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	<= 4.76 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Conditioned; ISO 180-1A
Izod Impact, Unnotched (ISO)	75.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	35.7 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 180-1U
	85.0 kJ/m <sup>2</sup> @Temperature -30.0 °C	40.4 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Conditioned; ISO 180-1U
	100 kJ/m <sup>2</sup> @Temperature 23.0 °C	47.6 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 180-1U
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	Conditioned; ISO 180-1U
Charpy Impact Unnotched	8.00 J/cm <sup>2</sup> @Temperature -30.0 °C	38.1 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179-1eU
	8.00 J/cm <sup>2</sup> @Temperature -30.0 °C	38.1 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	Conditioned; ISO 179-1eU
	14.0 J/cm <sup>2</sup> @Temperature 23.0 °C	66.6 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179-1eU
	NB	NB	

Mechanical Properties	Metric	English	Comments
	@ Temperature 23.0 °C	@ Temperature 73.4 °F	Conditioned; ISO 179-1eU
Charpy Impact, Notched	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	ISO 179-1eA
	@ Temperature 23.0 °C	@ Temperature 73.4 °F	
	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	ISO 179-1eA
	@ Temperature -30.0 °C	@ Temperature -22.0 °F	
	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	Conditioned; ISO 179-1eA
	@ Temperature -30.0 °C	@ Temperature -22.0 °F	
	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	ISO 179-1eA
	@ Temperature -40.0 °C	@ Temperature -40.0 °F	
	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	Conditioned; ISO 179-1eA
	@ Temperature -40.0 °C	@ Temperature -40.0 °F	
	1.20 J/cm <sup>2</sup>	5.71 ft-lb/in <sup>2</sup>	Conditioned; ISO 179-1eA
	@ Temperature 23.0 °C	@ Temperature 73.4 °F	
Puncture Energy	65.0 J	47.9 ft-lb	ISO 6603-2
	@ Temperature 23.0 °C	@ Temperature 73.4 °F	
	3.00 J	2.21 ft-lb	ISO 6603-2
	@ Load <= 74.2 kg, Temperature -30.0 °C	@ Load <= 164 lb, Temperature -22.0 °F	
	20.0 J	14.8 ft-lb	ISO 6603-2
	@ Load <= 309.1 kg, Temperature 23.0 °C	@ Load <= 681.4 lb, Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	60.0 µm/m-°C	33.3 µin/in-°F	ISO 11359-1,-2
CTE, linear, Transverse to Flow	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-1,-2
Melting Point	222 °C	432 °F	ISO 11357-1,-3
Deflection Temperature at 0.46 MPa (66 psi)	185 °C	365 °F	ISO 75-1,-2
Deflection Temperature at 1.8 MPa (264 psi)	85.0 °C	185 °F	ISO 75-1,-2

Thermal Properties	Metric	English	Comments
Vicat Softening Point	@Load 5.10 kg	@Load 11.2 lb	120Å°C/h; ISO 306
Flammability, UL94	HB	HB	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	HB	HB	
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	27 %	27 %	Method A; ISO 4589-2
Glow Wire Test	650 Å°C	1200 Å°F	
	@Diameter 2.00 mm	@Diameter 0.0787 in	IEC 60695-2-12
Shrinkage	0.30 %	0.30 %	
	@Temperature 120 Å°C, Time 14400 sec	@Temperature 248 Å°F, Time 4.00 hour	Molding Post-shrinkage; ISO 294-4
	0.30 %	0.30 %	
	@Temperature 120 Å°C, Time 14400 sec	@Temperature 248 Å°F, Time 4.00 hour	Molding Post-shrinkage; ISO 294-4

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	IEC 60093
Dielectric Constant	4.0	4.0	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 60250
	4.5	4.5	
	@Frequency 100 Hz	@Frequency 100 Hz	IEC 60250
Dielectric Strength	35.0 kV/mm	889 kV/in	
	@Thickness 1.00 mm	@Thickness 0.0394 in	IEC 60243-1
Dissipation Factor	0.024	0.024	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 60250
	0.025	0.025	
	@Frequency 100 Hz	@Frequency 100 Hz	IEC 60250
Comparative Tracking Index	550 V	550 V	Solution A, Rating; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	290 Â°C	554 Â°F	Processing conditions for test specimens; ISO 294
	280 - 300 Â°C	536 - 572 Â°F	Recommended
Mold Temperature	80.0 Â°C	176 Â°F	Processing conditions for test specimens; ISO 294
	80.0 - 120 Â°C	176 - 248 Â°F	Recommended
Drying Temperature	80.0 Â°C	176 Â°F	
Dry Time	2 - 6 hour	2 - 6 hour	
Moisture Content	0.030 - 1.12 %	0.030 - 1.12 %	Residual; Acc. To Karl Fischer

Descriptive Properties	Value	Comments
Flammability	Passed US-FMVSS302	ISO 3795
ISO Shortname	ISO 1874-PA 6,GHR,14-060,MD40	

## Contact Songhan Plastic Technology Co.,Ltd.

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