

## Lanxess Durethan® BKV 25 F30 000000 Nylon 6, Glass Fiber Reinforced, Flame Retardant

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Glass Fiber Filled, Flame Retardant

### Material Notes:

PA 6, 25% glass fibers, injection molding, flame retardant Information provided by LANXESS.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lanxess-Durethan-BKV-25-F30-000000-Nylon-6-Glass-Fiber-Reinforced-Flame-Retardant.php](http://www.lookpolymers.com/polymer_Lanxess-Durethan-BKV-25-F30-000000-Nylon-6-Glass-Fiber-Reinforced-Flame-Retardant.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.60 g/cc	1.60 g/cc	ISO 1183
Linear Mold Shrinkage, Flow	0.0010 cm/cm	0.0010 in/in	Post-shrinkage, 60x60x2; 120°C; 4 hour; ISO 294-4
	0.0030 cm/cm	0.0030 in/in	60x60x2; 280°C / MT 80°C; 600 bar; ISO 294-4
Linear Mold Shrinkage, Transverse	0.0010 cm/cm	0.0010 in/in	Post-shrinkage, 60x60x2; 120°C; 4 hour; ISO 294-4
	0.0060 cm/cm	0.0060 in/in	60x60x2; 280°C / MT 80°C; 600 bar; ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	90.0 MPa	13100 psi	cond.; ISO 527-1, -2; 5 mm/min
	150 MPa	21800 psi	d.a.m.; ISO 527-1, -2; 5 mm/min
Elongation at Break	2.3 %	2.3 %	d.a.m.; ISO 527-1, -2; 5 mm/min
	4.4 %	4.4 %	cond.; ISO 527-1, -2; 5 mm/min
Tensile Modulus	7.30 GPa	1060 ksi	cond.; ISO 527-1, -2; 1 mm/min
	11.0 GPa	1600 ksi	d.a.m.; ISO 527-1, -2; 1 mm/min
Flexural Strength	155 MPa	22500 psi	cond., 2 mm/min; ISO 178-A
	@Strain 4.00 %	@Strain 4.00 %	
Flexural Modulus	230 MPa	33400 psi	d.a.m., 2 mm/min; ISO 178-A
	@Strain 2.50 %	@Strain 2.50 %	
Izod Impact, Notched (ISO)	7.00 GPa	1020 ksi	cond., 2 mm/min; ISO 178-A
	10.0 GPa	1450 ksi	d.a.m., 2 mm/min; ISO 178-A
Izod Impact, Notched (ISO)	<= 10.0 kJ/m <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	d.a.m.; ISO 180-1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Mechanical Properties	Metric =<= 10.0 kJ/m <sup>2</sup>	English =<= 4.76 ft-lb/in <sup>2</sup>	Comments
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	cond.; ISO 180-1A
	10.0 kJ/m <sup>2</sup>  @Temperature 23.0 Â°C	4.76 ft-lb/in <sup>2</sup>  @Temperature 73.4 Â°F	d.a.m.; ISO 180-1A
	15.0 kJ/m <sup>2</sup>  @Temperature 23.0 Â°C	7.14 ft-lb/in <sup>2</sup>  @Temperature 73.4 Â°F	cond.; ISO 180-1A
Izod Impact, Unnotched (ISO)	45.0 kJ/m <sup>2</sup>  @Temperature -30.0 Â°C	21.4 ft-lb/in <sup>2</sup>  @Temperature -22.0 Â°F	d.a.m.; ISO 180-1U
	50.0 kJ/m <sup>2</sup>  @Temperature 23.0 Â°C	23.8 ft-lb/in <sup>2</sup>  @Temperature 73.4 Â°F	d.a.m.; ISO 180-1U
	50.0 kJ/m <sup>2</sup>  @Temperature -30.0 Â°C	23.8 ft-lb/in <sup>2</sup>  @Temperature -22.0 Â°F	cond.; ISO 180-1U
	55.0 kJ/m <sup>2</sup>  @Temperature 23.0 Â°C	26.2 ft-lb/in <sup>2</sup>  @Temperature 73.4 Â°F	cond.; ISO 180-1U
Charpy Impact Unnotched	4.50 J/cm <sup>2</sup>  @Temperature -30.0 Â°C	21.4 ft-lb/in <sup>2</sup>  @Temperature -22.0 Â°F	d.a.m.; ISO 179-1eU
	5.00 J/cm <sup>2</sup>  @Temperature -30.0 Â°C	23.8 ft-lb/in <sup>2</sup>  @Temperature -22.0 Â°F	cond.; ISO 179-1eU
	5.50 J/cm <sup>2</sup>  @Temperature 23.0 Â°C	26.2 ft-lb/in <sup>2</sup>  @Temperature 73.4 Â°F	d.a.m.; ISO 179-1eU
	5.50 J/cm <sup>2</sup>  @Temperature 23.0 Â°C	26.2 ft-lb/in <sup>2</sup>  @Temperature 73.4 Â°F	cond.; ISO 179-1eU
Charpy Impact, Notched	<= 1.00 J/cm <sup>2</sup>  @Temperature -30.0 Â°C	<= 4.76 ft-lb/in <sup>2</sup>  @Temperature -22.0 Â°F	d.a.m.; ISO 179-1eA
	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	cond.; ISO 179-1eA

Mechanical Properties	@Temperature -30.0 Metric °C	@Temperature -22.0 English °F	Comments
	1.00 J/cm <sup>2</sup>	4.76 ft-lb/in <sup>2</sup>	d.a.m.; ISO 179-1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	1.50 J/cm <sup>2</sup>	7.14 ft-lb/in <sup>2</sup>	cond.; ISO 179-1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Puncture Energy	1.90 J	1.40 ft-lb	ISO 6603-2
	@Load <=91.8 kg, Temperature -30.0 °C	@Load <=202 lb, Temperature -22.0 °F	
	3.00 J	2.21 ft-lb	ISO 6603-2
	@Load <=102 kg, Temperature 23.0 °C	@Load <=225 lb, Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 Åµm/m-Å°C	11.1 Åµin/in-Å°F	ISO 11359-1, -2
	@Temperature 23.0 - 55.0 Å°C	@Temperature 73.4 - 131 Å°F	
CTE, linear, Transverse to Flow	90.0 Åµm/m-Å°C	50.0 Åµin/in-Å°F	ISO 11359-1, -2
	@Temperature 23.0 - 55.0 Å°C	@Temperature 73.4 - 131 Å°F	
Melting Point	222 Å°C	432 Å°F	10Å°C/min; ISO 11357-1, -3
Deflection Temperature at 0.46 MPa (66 psi)	215 Å°C	419 Å°F	ISO 75-1, -2
Deflection Temperature at 1.8 MPa (264 psi)	205 Å°C	401 Å°F	ISO 75-1, -2
Vicat Softening Point	205 Å°C	401 Å°F	120Å°C/hour; ISO 306
	@Load 5.10 kg	@Load 11.2 lb	
Flammability, UL94	V-0	V-0	
	@Thickness 0.400 mm	@Thickness 0.0157 in	
	V-0	V-0	
	@Thickness 3.00 mm	@Thickness 0.118 in	
	5VA	5VA	
	@Thickness 1.00 mm	@Thickness 0.0394 in	
Glow Wire Test	775 Å°C	1430 Å°F	GWIT; IEC 60695-2-13

Thermal Properties	@Diameter 0.800 mm Metric	@Diameter 0.0315 in English	Comments
	775 Å°C	1430 Å°F	GWIT; IEC 60695-2-13
	@Diameter 1.50 mm	@Diameter 0.0591 in	
	850 Å°C	1560 Å°F	GWIT; IEC 60695-2-13
	@Diameter 0.400 mm	@Diameter 0.0157 in	
	850 Å°C	1560 Å°F	GWIT; IEC 60695-2-13
	@Diameter 3.00 mm	@Diameter 0.118 in	
	960 Å°C	1760 Å°F	GWFI; IEC 60695-2-12
	@Diameter 0.400 mm	@Diameter 0.0157 in	
	960 Å°C	1760 Å°F	GWFI; IEC 60695-2-12
	@Diameter 0.800 mm	@Diameter 0.0315 in	
	960 Å°C	1760 Å°F	GWFI; IEC 60695-2-12
	@Diameter 1.50 mm	@Diameter 0.0591 in	
	960 Å°C	1760 Å°F	GWFI; IEC 60695-2-12
	@Diameter 3.00 mm	@Diameter 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	3.40e+14 ohm-cm	3.40e+14 ohm-cm	d.a.m.; IEC 60093
Surface Resistance	4.10e+13 ohm	4.10e+13 ohm	d.a.m.; IEC 60093
Comparative Tracking Index	400 V	400 V	d.a.m.; Solution A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	270 - 290 Å°C	518 - 554 Å°F	admissible residence time at Tmax >= 10 min
	280 Å°C	536 Å°F	for test specimens; ISO 294
Mold Temperature	80.0 Å°C	176 Å°F	for test specimens; ISO 294
	80.0 - 100 Å°C	176 - 212 Å°F	
Drying Temperature	80.0 Å°C	176 Å°F	
Dry Time	2 - 6 hour	2 - 6 hour	
Moisture Content	0.030 - 0.12 %	0.030 - 0.12 %	residual; Karl Fischer Test

Descriptive Properties	Value	Comments
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Flammability Test Descriptive Properties	Passed Value	Comments ISO 3705 US-FMVSS302
ISO Shortname	ISO 1874-PA 6, GFHR, 14-110, GF25; ISO 1043-PA GF FR (17)	

## Contact Songhan Plastic Technology Co.,Ltd.

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