

Lanxess Durethan® B 31 FCS 000000 Nylon 6, Film Grade

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

Material Notes:

PA 6, non-reinforced, extrusion, low viscosity, slip agentInformation provided by LANXESS.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Lanxess-Durethan-B-31-FCS-000000-Nylon-6-Film-Grade.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.14 g/cc	1.14 g/cc	ISO 1183
Bulk Density	0.700 g/cc	0.0253 lb/in ³	ISO 60
Moisture Absorption at Equilibrium	3.0 %	3.0 %	50% RH; ISO 62
Water Absorption at Saturation	10 %	10 %	ISO 62
Melt Flow	16 g/10 min @Load 2.16 kg, Temperature 235 °C	16 g/10 min @Load 4.76 lb, Temperature 455 °F	ISO 1133-1

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	50.0 MPa	7250 psi	ISO 2039-1
	140 MPa	20300 psi	ISO 2039-1
Tensile Strength, Yield	35.0 MPa	5080 psi	cond.; ISO 527-1, -2; 50 mm/min
	75.0 MPa	10900 psi	d.a.m.; ISO 527-1, -2; 50 mm/min
Elongation at Break	20 %	20 %	d.a.m.; ISO 527-1, -2; 50 mm/min
	>= 50 %	>= 50 %	cond.; ISO 527-1, -2; 50 mm/min
Elongation at Yield	4.0 %	4.0 %	d.a.m.; ISO 527-1, -2; 50 mm/min
	25 %	25 %	cond.; ISO 527-1, -2; 50 mm/min
Tensile Modulus	0.800 GPa	116 ksi	cond.; ISO 527-1, -2; 1 mm/min
	2.80 GPa	406 ksi	d.a.m.; ISO 527-1, -2; 1 mm/min
Flexural Strength	20.0 MPa @Strain 3.50 %	2900 psi @Strain 3.50 %	cond., 2 mm/min; ISO 178-A
	90.0 MPa @Strain 3.50 %	13100 psi @Strain 3.50 %	d.a.m., 2 mm/min; ISO 178-A

Flexural Modulus Mechanical Properties	0.700 GPa Metric	102 ksi English	cond. 2 mm/min; ISO 178-A Comments
	2.60 GPa	377 ksi	d.a.m., 2 mm/min; ISO 178-A
Izod Impact, Notched (ISO)	7.00 kJ/m ²	3.33 ft-lb/in ²	d.a.m.; ISO 180-1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	7.00 kJ/m ²	3.33 ft-lb/in ²	d.a.m.; ISO 180-1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	7.50 kJ/m ²	3.57 ft-lb/in ²	cond.; ISO 180-1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	50.0 kJ/m ²	23.8 ft-lb/in ²	cond.; ISO 180-1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Unnotched (ISO)	NB	NB	d.a.m.; ISO 180-1U
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	cond.; ISO 180-1U
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	d.a.m.; ISO 180-1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	NB	NB	cond.; ISO 180-1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact Unnotched	5.50 J/cm ²	26.2 ft-lb/in ²	cond.; ISO 179-1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	NB	NB	d.a.m.; ISO 179-1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	cond.; ISO 179-1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	d.a.m.; ISO 179-1eU
	@Temperature -30.0	@Temperature -22.0	

Mechanical Properties	Metric ↔ 0.500 J/cmÂ²	English ↔ 2.38 ft-lb/inÂ²	Comments
Charpy Impact, Notched	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	cond.; ISO 179-1eA
	0.500 J/cmÂ² @Temperature 23.0 Â°C	2.38 ft-lb/inÂ² @Temperature 73.4 Â°F	d.a.m.; ISO 179-1eA
	0.500 J/cmÂ² @Temperature -30.0 Â°C	2.38 ft-lb/inÂ² @Temperature -22.0 Â°F	d.a.m.; ISO 179-1eA
	5.00 J/cmÂ² @Temperature 23.0 Â°C	23.8 ft-lb/inÂ² @Temperature 73.4 Â°F	cond.; ISO 179-1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	80.0 Âµm/m-Â°C @Temperature 23.0 - 55.0 Â°C	44.4 Âµin/in-Â°F @Temperature 73.4 - 131 Â°F	ISO 11359-1, -2
CTE, linear, Transverse to Flow	80.0 Âµm/m-Â°C @Temperature 23.0 - 55.0 Â°C	44.4 Âµin/in-Â°F @Temperature 73.4 - 131 Â°F	ISO 11359-1, -2
Melting Point	222 Â°C	432 Â°F	10Â°C/min; ISO 11357-1, -3
Deflection Temperature at 0.46 MPa (66 psi)	150 Â°C	302 Â°F	ISO 75-1, -2
Deflection Temperature at 1.8 MPa (264 psi)	50.0 Â°C	122 Â°F	ISO 75-1, -2
Vicat Softening Point	200 Â°C @Load 5.10 kg	392 Â°F @Load 11.2 lb	120Â°C/hour; ISO 306

Processing Properties	Metric	English	Comments
Melt Temperature	260 Â°C	500 Â°F	for test specimens; ISO 294
Mold Temperature	40.0 Â°C	104 Â°F	for test specimens; ISO 294
Drying Temperature	80.0 Â°C	176 Â°F	

Descriptive Properties	Value	Comments
ISO Shortname	ISO 1874-PA 6, ES, 14-030	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China