

Durethan® DP 1801/30 H3.0 000000

Polyamide 6

LANXESS Asia/Pacific

Message:

PA 6, 30 % glass fibers, injection molding, halogen free flame retardant

General Information				
UL YellowCard		E245249-473609		
Filler / Reinforcement		Glass fiber reinforced material, 30% filler by weight		
Additive		Flame retardancy		
Features		Halogen-free		
		Flame retardancy		
Agency Ratings		EC 1907/2006 (REACH)		
Processing Method		Injection molding		
Resin ID (ISO 1043)		PA GF FR (30)		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.40	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 2577
Vertical flow direction: 260°C, 2.00mm ¹	0.70	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.20	--	%	ISO 2577
Flow direction: 260°C, 2.00mm ³	0.60	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.20	--	%	ISO 2577
Water Absorption (Saturation, 23°C)	5.9	--	%	ISO 62
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	194	--	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	7600	3400	MPa	ISO 527-2/1
Tensile Stress				
Yield, 23°C	96.0	50.0	MPa	ISO 527-2/50
Fracture, 23°C	93.0	47.0	MPa	ISO 527-2/5
Tensile Strain				
Yield, 23°C	2.4	9.7	%	ISO 527-2/50
Fracture, 23°C	4.0	28	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	7300	3200	MPa	ISO 178/A
Flexural Stress				ISO 178/A

3.5% strain, 23°C	170	65.0	MPa	ISO 178/A
23°C ⁶	170	75.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	4.0	6.9	%	ISO 178/A
ISO Shortname	PA 6, GFHR, 14-080, GF30	--		ISO 1874
Residual Moisture Content	0.030 - 0.070		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	< 10	--	kJ/m ²	ISO 179/1eA
-30°C	< 10	--	kJ/m ²	ISO 179/1eA
23°C	< 10	--	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	50	84	kJ/m ²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-40°C	< 10	--	kJ/m ²	ISO 180/1A
-30°C	< 10	--	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	35	80	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	210	--	°C	ISO 75-2/B
1.8 MPa, not annealed	180	--	°C	ISO 75-2/A
Vicat Softening Temperature	210	--	°C	ISO 306/B120
Melting Temperature ⁸	222	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	6.1E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	4.0E-5	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+13	--	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+15	--	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	38	--	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 1	--		UL 746
Comparative Tracking Index (Solution A)	550	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.800 mm	V-2	--		UL 94
1.60 mm	V-2	--		UL 94
3.00 mm	V-2	--		UL 94

Glow Wire Flammability Index				IEC 60695-2-12
0.800 mm	960	--	°C	IEC 60695-2-12
1.60 mm	960	--	°C	IEC 60695-2-12
3.00 mm	960	--	°C	IEC 60695-2-12
Glow Wire Ignition Temperature				IEC 60695-2-13
0.750 mm	725	--	°C	IEC 60695-2-13
1.50 mm	725	--	°C	IEC 60695-2-13
3.00 mm	725	--	°C	IEC 60695-2-13
Oxygen Index ⁹	30	--	%	ISO 4589-2
Injection	Dry	Unit	Test Method	
Drying Temperature - Dry Air Dryer	80.0		°C	
Drying Time - Dry Air Dryer	2.0 - 6.0		hr	
Processing (Melt) Temp	250 - 270		°C	
Mold Temperature	80.0 - 100		°C	
NOTE				
1.	60x60x2mm, 80°C MT, 600 bar			
2.	60x60x2mm			
3.	60x60x2mm, 80°C MT, 600 bar			
4.	60x60x2mm			
5.	2.0 mm/min			
6.	2.0 mm/min			
7.	2 mm/min			
8.	10°C/min			
9.	Procedure A			

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



WECHAT