

Durethan® B 30 S FN30 000000

Polyamide 6

LANXESS GmbH

Message:

PA 6, non-reinforced, injection molding, halogen free flame retardant, heat-aging resistance

General Information				
UL YellowCard	E245249-100915707			
Additive	Flame retardancy			
Features	Good heat aging resistance			
	Halogen-free			
	Flame retardancy			
Agency Ratings	EC 1907/2006 (REACH)			
Processing Method	Injection molding			
Resin ID (ISO 1043)	PA FR (30)			
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.14	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 2577
Vertical flow direction: 260°C, 2.00mm ¹	0.90	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.30	--	%	ISO 2577
Flow direction: 260°C, 2.00mm ³	0.90	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.30	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	9.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.6	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	3700	1200	MPa	ISO 527-2/1
Tensile Stress				
Yield, 23°C	80.0	40.0	MPa	ISO 527-2/50
Fracture, 23°C	80.0	50.0	MPa	ISO 527-2/5
Tensile Strain				
Yield, 23°C	3.5	20	%	ISO 527-2/50
Fracture, 23°C	14	> 50	%	ISO 527-2/5
Nominal Tensile Strain at Break (23°C)	10	> 50	%	ISO 527-2/50
Flexural Modulus ⁵ (23°C)	3600	1200	MPa	ISO 178/A

Flexural Stress				ISO 178/A
3.5% strain, 23°C	110	35.0	MPa	ISO 178/A
23°C ⁶	120	45.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	5.5	8.0	%	ISO 178/A
ISO Shortname	PA 6, GFHR, 12-030	--		ISO 1874
Residual Moisture Content	0.030 - 0.070		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	< 10	15	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	75	75	kJ/m ²	ISO 179/1eU
23°C	90 kJ/m ²	No Break		ISO 179/1eU
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	65	85	kJ/m ²	ISO 180/1U
23°C	90 kJ/m ²	No Break		ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	185	--	°C	ISO 75-2/B
1.8 MPa, not annealed	65.0	--	°C	ISO 75-2/A
Ball Pressure Test (207°C)	Pass	--		IEC 60695-10-2
Melting Temperature ⁸	222	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	7.0E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	8.0E-5	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+16	--	ohms	IEC 60167
Volume Resistivity (23°C)	1.0E+15	--	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	31	--	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 0	--		UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.380 mm	V-0	--		UL 94
0.750 mm	V-0	--		UL 94
1.50 mm	V-0	--		UL 94
3.00 mm	V-0	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.400 mm	960	--	°C	IEC 60695-2-12

0.800 mm	960	--	°C	IEC 60695-2-12
1.50 mm	960	--	°C	IEC 60695-2-12
3.00 mm	960	--	°C	IEC 60695-2-12
Glow Wire Ignition Temperature				IEC 60695-2-13
0.400 mm	775	--	°C	IEC 60695-2-13
0.800 mm	775	--	°C	IEC 60695-2-13
1.50 mm	775	--	°C	IEC 60695-2-13
Oxygen Index ⁹	40	--	%	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

