

Durethan® BM 25 FN20 DUS013 000000

Polyamide 6

LANXESS GmbH

Message:

PA 6, 25 % mineral, injection molding, halogen free flame retardant, optimized for laser marking (1064nm)

General Information				
Filler / Reinforcement		Mineral filler, 25% filler by weight		
Features		Halogen-free		
		Flame retardancy		
Processing Method		Injection molding		
Resin ID (ISO 1043)		PA MD FR(30)		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.43	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 294-4
Vertical flow direction: 280°C, 2.00mm ¹	0.90	--	%	ISO 294-4
Vertical flow direction: 120°C, 2 hours, 2.00mm ²	0.20	--	%	ISO 294-4
Flow direction: 280°C, 2.00mm ³	0.90	--	%	ISO 294-4
Flow direction: 120°C, 2 hours, 2.00mm ⁴	0.20	--	%	ISO 294-4
Water Absorption (Saturation, 23°C)	6.7	--	%	ISO 62
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	178	70.0	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	5700	2100	MPa	ISO 527-2/1
Tensile Stress				
Yield, 23°C	80.0	30.0	MPa	ISO 527-2/50
Fracture, 23°C	80.0	30.0	MPa	ISO 527-2/5
Tensile Strain				
Yield, 23°C	3.0	8.0	%	ISO 527-2/50
Fracture, 23°C	3.0	7.0	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	5500	2000	MPa	ISO 178/A
Flexural Stress ⁶				
3.5% strain	130	43.0	MPa	ISO 178/A
23°C	130	50.0	MPa	ISO 178

Flexural Strain at Flexural Strength ⁷ (23°C)	3.3	6.8	%	
ISO Shortname	PA 6, GFHR, 14-060, MD25; ISO-1043-PA MD FR (30)			ISO 1874
Residual Moisture Content	0.030 - 0.070			Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	38	140	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	< 10	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	30	100	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	195	--	°C	ISO 75-2/B
1.8 MPa, not annealed	90.0	--	°C	ISO 75-2/A
Vicat Softening Temperature	206	--	°C	ISO 306/B120
Ball Pressure Test (205°C)	Pass	--		IEC 60695-10-2
Melting Temperature ⁸	220	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	6.0E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	7.0E-5	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (CTI)	PLC 1	--		UL 746
Comparative Tracking Index (Solution A)	450	--	V	IEC 60112
High Amp Arc Ignition (HAI)	PLC 0	--		UL 746
Hot-wire Ignition (HWI)	PLC 2	--		UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.750 mm	V-2	--		UL 94
1.50 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
1.50 mm	960	--	°C	IEC 60695-2-12
3.00 mm	960	--	°C	IEC 60695-2-12
Glow Wire Ignition Temperature				IEC 60695-2-13
0.750 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
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.	60x60x2; MT 80°C; 600 Bar			
2.	60x60x2			
3.	60x60x2; MT 80°C; 600 Bar			
4.	60x60x2			
5.	2.0 mm/min			
6.	2.0 mm/min			
7.	Pull Rate: 2 mm/min; 50% RH			
8.	10°C/min			

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

