

Durethan® BM 240 H3.0 000000

Polyamide 6

LANXESS GmbH

Message:

PA 6, 40 % mineral, injection molding, heat-aging stabilized, low tendency to warp, isotopic properties

General Information				
UL YellowCard		E245249-473603		
Filler / Reinforcement		Mineral filler, 40% filler by weight		
Additive		heat stabilizer		
Features		Good Isotropy		
		Low warpage		
		Thermal Stability		
Agency Ratings		EC 1907/2006 (REACH)		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.44	--	g/cm ³	ISO 1183
Apparent Density	0.70	--	g/cm ³	ISO 60
Molding Shrinkage				ISO 2577
Vertical flow direction: 280°C, 2.00mm ¹	0.85	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.25	--	%	ISO 2577
Flow direction: 280°C, 2.00mm ³	0.85	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.25	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	6.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.9	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
23°C	5630	2140	MPa	ASTM D638
23°C	5700	2200	MPa	ISO 527-2/1
Tensile Strength				
Fracture, 23°C	82.7	53.1	MPa	ASTM D638
Fracture, 23°C	85.0	55.0	MPa	ISO 527-2/5
Tensile Elongation				
Fracture, 23°C	10	40	%	ASTM D638
Fracture, 23°C	5.5	40	%	ISO 527-2/5

Flexural Modulus				
23°C	5600	2000	MPa	ASTM D790
23°C ⁵	5500	2000	MPa	ISO 178/A
Flexural Strength				
23°C	150	64.8	MPa	ASTM D790
3.5% strain, 23°C	130	60.0	MPa	ISO 178/A
23°C ⁶	140	65.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	5.5	8.0	%	ISO 178/A
Burning Behavior ⁸	passed	--		ISO 3795
ISO Shortname	PA 6, GHR, 14-060, MD40	--		ISO 1874
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				
				ISO 179/1eA
-40°C	< 10	< 10	kJ/m ²	ISO 179/1eA
-30°C	< 10	< 10	kJ/m ²	ISO 179/1eA
23°C	< 10	12	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				
				ISO 179/1eU
-30°C	130	80	kJ/m ²	ISO 179/1eU
23°C	150 kJ/m ²	No Break		ISO 179/1eU
Notched Izod Impact				
				ISO 180/1A
-30°C	< 10	< 10	kJ/m ²	ISO 180/1A
23°C	< 10	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				
				ISO 180/1U
-30°C	100	85	kJ/m ²	ISO 180/1U
23°C	130 kJ/m ²	No Break		ISO 180/1U
Multi-Axial Instrumented Impact Energy				
				ISO 6603-2
-30°C	3.00	--	J	ISO 6603-2
23°C	20.0	65.0	J	ISO 6603-2
Multi-Axial Instrumented Impact Peak Force				
				ISO 6603-2
-30°C	728	--	N	ISO 6603-2
23°C	3030	--	N	ISO 6603-2
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	85.0	--	°C	ISO 75-2/A
Vicat Softening Temperature				
	> 200	--	°C	ISO 306/B120
Melting Temperature ⁹	222	--	°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
Surface Resistivity	7.0E+15	--	ohms	IEC 60093
Volume Resistivity (23°C)	4.0E+15	--	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	36	--	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.50	--		IEC 60250
23°C, 1 MHz	4.00	--		IEC 60250
Dissipation Factor				IEC 60250
23°C, 100 Hz	0.026	--		IEC 60250
23°C, 1 MHz	0.024	--		IEC 60250
Comparative Tracking Index (Solution A)	550	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
1.60 mm	HB	--		UL 94
3.20 mm	HB	--		UL 94
Glow Wire Flammability Index (2.00 mm)	650	--	°C	IEC 60695-2-12
Oxygen Index ¹⁰	27	--	%	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	280 - 300		°C	
Mold Temperature	80.0 - 120		°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.	US-FMVSS302			
9.	10°C/min			
10.	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

