Durethan® BM 240 000000

Polyamide 6

LANXESS GmbH

Message:

PA 6, 40 % mineral, injection molding, isotropic properties, low tendency to warp

General Information				
Filler / Reinforcement	Mineral,40% Filler by Weight			
Features	Low Warpage			
Processing Method	Injection Molding			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (23°C)	1.46	--	g/cm³	ISO 1183
Apparent Density	0.70	--	g/cm³	ISO 60
Molding Shrinkage				ISO 2577
Across Flow : 280°C, 3.00 mm [1]	1.2	--	%	
Across Flow : 120°C, 4 hr, 3.00 mm [2]	0.20	--	%	
Flow : 280°C, 3.00 mm [3]	1.3	--	%	
Flow : 120°C, 4 hr, 3.00 mm [4]	0.17	--	%	
Water Absorption				ISO 62
Saturation, 23°C	6.0	--	%	
Equilibrium, 23°C, 50% RH	1.9	--	%	
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Ball Indentation Hardness	205	85.0	MPa	ISO 2039-1
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus				
23°C	5630	2140	MPa	ASTM D638
23°C	5800	2200	MPa	ISO 527-2/1
Tensile Strength				
Break, 23°C	82.7	53.1	MPa	ASTM D638
Break, 23°C	85.0	55.0	MPa	ISO 527-2/5
Tensile Elongation (Break, 23°C)	10	40	%	ASTM D638, 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	145	60.0	MPa	ISO 178/A

23°C [6]	150	65.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength [7] (23°C)	5.0	8.0	%	ISO 178/A
ISO Shortname	PA 6, MHR, 14-060, MD40	--		ISO 1874
Residual Moisture Content	0.030 to 0.12		%	Karl Fisher
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-40°C	< 10	< 10	kJ/m²	
-30°C	< 10	< 10	kJ/m²	
23°C	< 10	12	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	80	80	kJ/m²	
23°C	140 kJ/m²	No Break		
Notched Izod Impact Strength				ISO 180/1A
-40°C	< 10	< 10	kJ/m²	
-30°C	< 10	< 10	kJ/m²	
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	75	85	kJ/m²	
23°C	100 kJ/m²	No Break		
Multi-Axial Instrumented Impact Energy				ISO 6603-2
-30°C	3.00	--	J	
23°C	20.0	65.0	J	
Multi-Axial Instrumented Impact Peak Force				ISO 6603-2
-30°C	728	--	N	
23°C	3030	--	N	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, Unannealed	190	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	90.0	--	°C	ISO 75-2/A
Vicat Softening Temperature	> 200	--	°C	ISO 306/B50, ISO 306/B120
Melting Temperature [8]	222	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C	6.0E-5	--	cm/cm/°C	
Transverse : 23 to 55°C	7.0E-5	--	cm/cm/°C	
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Glow Wire Flammability Index (2.00 mm)	650	--	°C	IEC 60695-2-12

Injection	Dry	Unit	Test Method
Drying Temperature - Dry Air Dryer	80.0		°C
Drying Time - Dry Air Dryer	2.0 to 6.0		hr
Processing (Melt) Temp	270 to 290		°C
Mold Temperature	80.0 to 120		°C
NOTE			
1.	150x105x3mm, 80°C MT, 500 bar		
2.	150x105x3mm		
3.	150x105x3mm, 80°C MT, 500 bar		
4.	150x105x3mm		
5.	2.0 mm/min		
6.	2.0 mm/min		
7.	2 mm/min		
8.	10°C/min		

Recommended distributors for this material

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