

Durethan® DP 2325 H3.0 000000

Polyamide 66

LANXESS Asia/Pacific

Message:

PA 66, non-reinforced, injection molding, improved impact strength, heat-aging stabilized

General Information				
Additive	heat stabilizer			
Features	Impact resistance, good			
	Good heat aging resistance			
Agency Ratings	EC 1907/2006 (REACH)			
Forms	Particle			
Processing Method	Injection molding			
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.08	--	g/cm ³	ISO 1183
Molding Shrinkage				
Vertical flow direction: 280°C, 2.00mm ¹	1.6	--	%	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	2.1	--	%	ISO 294-4
Flow direction: 120°C, 2 hours, 2.00mm ⁴	0.50	--	%	ISO 294-4
Vertical flow direction: 280°C, 3.00mm ⁵	1.9	--	%	ISO 2577
Vertical flow direction: 120°C, 2 hours, 3.00mm ⁶	0.10	--	%	ISO 294-4
Flow direction: 280°C, 3.00mm ⁷	2.1	--	%	ISO 2577
Flow direction: 120°C, 2 hours, 3.00mm ⁸	0.50	--	%	ISO 2577
Water Absorption				ISO 62
Saturated, 23°C	7.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.0	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	1800	700	MPa	ISO 527-2/1
Tensile Stress				
Yield, 23°C	50.0	30.0	MPa	ISO 527-2/50
Fracture, 23°C	47.0	49.0	MPa	ISO 527-2/5
Tensile Strain				

Yield, 23°C	21	38	%	ISO 527-2/50
Fracture, 23°C	80	290	%	ISO 527-2/5
Nominal Tensile Strain at Break (23°C)	50	50	%	ISO 527-2/50
Flexural Modulus ⁹ (23°C)	1700	660	MPa	ISO 178/A
Flexural Stress ¹⁰				
3.5% strain	55.0	19.0	MPa	ISO 178/A
23°C	70.0	27.0	MPa	ISO 178
Flexural Strain at Flexural Strength ¹¹ (23°C)	7.2	8.7	%	
Burning Behavior ¹² (> 1.00 mm)	25	--		ISO 3795
ISO Shortname	PA 66-HI, GHR, 14-020	--		ISO 1874
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Films	Dry	Conditioned	Unit	Test Method
Film Puncture Energy				ISO 6603-2
-- ¹³	60.0	--	J	ISO 6603-2
-- ¹⁴	50.0	--	J	ISO 6603-2
Film Puncture Force				ISO 6603-2
-- ¹⁵	5400	--	N	ISO 6603-2
-- ¹⁶	3900	--	N	ISO 6603-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	20	20	kJ/m ²	ISO 179/1eA
23°C	50	100	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	No Break		ISO 179/1eU
23°C	No Break	No Break		ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	25	20	kJ/m ²	ISO 180/1A
23°C	80	100	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	No Break	No Break		ISO 180/1U
23°C	No Break	No Break		ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	110	--	°C	ISO 75-2/B
1.8 MPa, not annealed	60.0	--	°C	ISO 75-2/A
8.0 MPa, not annealed	50.0	--	°C	ISO 75-2/C
Vicat Softening Temperature	> 200	--	°C	ISO 306/B50, ISO 306/B120

Melting Temperature ¹⁷	263	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	1.3E-4	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.3E-4	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+15	1.0E+14	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+19	1.0E+17	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	40	45	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	3.50	7.00		IEC 60250
23°C, 1 MHz	3.00	3.40		IEC 60250
Dissipation Factor				IEC 60250
23°C, 100 Hz	8.0E-3	0.15		IEC 60250
23°C, 1 MHz	0.015	0.075		IEC 60250
Comparative Tracking Index (Solution A)	600	--	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 ¹⁸	20	--	%	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	270 - 290		°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.	150x150x3; MT 80°C; 500 Bar			
6.	150x150x3			
7.	150x150x3; MT 80°C; 500 Bar			
8.	150x150x3			
9.	2.0 mm/min			
10.	2.0 mm/min			

11.	Pull Rate: 2 mm/min; 50% RH
12.	US-FMVSS302
13.	-30°C
14.	23°C
15.	-30°C
16.	23°C
17.	10°C/min
18.	Procedure A

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