

Durethan® BC 550 Z DUSXBL 900116

Polyamide 6

LANXESS GmbH

Message:

PA 6, non-reinforced, blow molding, improved impact strength, heat-aging stabilized

General Information				
Additive		heat stabilizer		
Features		Impact resistance, good		
		Good heat aging resistance		
Processing Method		Blow molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.07	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Vertical flow direction: 260°C, 2.00mm ¹	1.5	--	%	ISO 294-4
Vertical flow direction: 120°C, 2 hours, 2.00mm ²	0.20	--	%	ISO 294-4
Flow direction: 260°C, 2.00mm ³	1.5	--	%	ISO 294-4
Flow direction: 120°C, 2 hours, 2.00mm ⁴	0.20	--	%	ISO 294-4
Water Absorption				ISO 62
Saturated, 23°C	9.1	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.5	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	2000	430	MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	50.0	--	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	4.0	--	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	140	170	%	ISO 527-2/50
Flexural Modulus ⁵ (23°C)	1800	470	MPa	ISO 178/A
Flexural Stress ⁶				
3.5% strain	55.0	14.0	MPa	ISO 178/A
23°C	66.0	21.0	MPa	ISO 178
Flexural Strain at Flexural Strength ⁷ (23°C)	6.0	9.0	%	
ISO Shortname	PA 6-HI, BHR, 14-020	--		ISO 1874
Residual Moisture Content	0.0 - 0.060		%	Karl Fisher
Films	Dry	Conditioned	Unit	Test Method

Film Puncture Energy				ISO 6603-2
-- 8	67.0	--	J	ISO 6603-2
-- 9	65.0	--	J	ISO 6603-2
Film Puncture Force				ISO 6603-2
-- 10	5700	--	N	ISO 6603-2
-- 11	5000	--	N	ISO 6603-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	25	25	kJ/m ²	ISO 179/1eA
23°C	100	130	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	25	kJ/m ²	ISO 180/1A
23°C	85	110	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 (1.8 MPa, Unannealed)	53.0	--	°C	ISO 75-2/A
Melting Temperature ¹²	219	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	1.4E-4	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.3E-4	--	cm/cm/°C	ISO 11359-2
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	230 - 280		°C	
Mold Temperature	60.0 - 90.0		°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.	-30°C
9.	23°C
10.	-30°C
11.	23°C
12.	10°C/min

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