

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		Good Impact Resistance		
		Heat Stabilized		
Processing Method		Blow Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.07	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 2577
Across Flow : 260°C, 2.00 mm ¹	1.5	--	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.20	--	%	
Flow : 260°C, 2.00 mm ³	1.5	--	%	
Flow : 120°C, 4 hr, 2.00 mm ⁴	0.20	--	%	
Water Absorption				ISO 62
Saturation, 23°C	9.1	--	%	
Equilibrium, 23°C, 50% RH	2.5	--	%	
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				ISO 178/A
3.5% Strain, 23°C	55.0	14.0	MPa	
23°C ⁶	66.0	21.0	MPa	
Flexural Strain at Flexural Strength ⁷ (23°C)	6.0	9.0	%	ISO 178/A
ISO Shortname	PA 6-HI, BHR, 14-020	--		ISO 1874
Residual Moisture Content	0.0 to 0.060		%	Karl Fisher
Impact	Dry	Conditioned	Unit	Test Method

Charpy Notched Impact Strength				ISO 179/1eA
-30°C	25	25	kJ/m ²	
23°C	100	130	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	No Break		
23°C	No Break	No Break		
Notched Izod Impact Strength				ISO 180/1A
-30°C	25	25	kJ/m ²	
23°C	85	110	kJ/m ²	
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	No Break	No Break		
23°C	No Break	No Break		
Multi-Axial Instrumented Impact Energy				ISO 6603-2
-30°C	67.0	--	J	
23°C	65.0	--	J	
Multi-Axial Instrumented Impact Peak Force				ISO 6603-2
-30°C	5700	--	N	
23°C	5000	--	N	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	53.0	--	°C	ISO 75-2/A
Melting Temperature ⁸	219	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C	1.4E-4	--	cm/cm/°C	
Transverse : 23 to 55°C	1.3E-4	--	cm/cm/°C	
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	230 to 280		°C	
Mold Temperature	60.0 to 90.0		°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.	10°C/min

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