

Durethan® BCF 30 X H2.0 901510

Polyamide 6

LANXESS Corporation

Message:

PA 6, 30 % glass fibers/carbon fibers, injection molding, heat-aging stabilized, improvedElectrical conductivity

General Information				
Filler / Reinforcement		Glass\Carbon Fiber,30% Filler by Weight		
Additive		Heat Stabilizer		
Features		Electrically Conductive		
		Good Heat Aging Resistance		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.33	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	15.0	--	cm ³ /10min	ISO 1133
Molding Shrinkage				
Across Flow : 280°C, 2.00 mm ¹	0.77	--	%	ISO 294-4
Across Flow : 120°C, 2 hr, 2.00 mm ²	0.080	--	%	ISO 294-4
Flow : 280°C, 2.00 mm ³	0.22	--	%	ISO 294-4
Flow : 120°C, 2 hr, 2.00 mm ⁴	0.030	--	%	ISO 294-4
Across Flow : 23°C, 3.00 mm ⁵	0.75	--	%	ISO 2577
Across Flow : 120°C, 2 hr, 3.00 mm ⁶	0.10	--	%	ISO 294-4
Flow : 280°C, 3.00 mm ⁷	0.15	--	%	ISO 2577
Flow : 120°C, 2 hr, 3.00 mm ⁸	0.030	--	%	ISO 2577
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	13500	6700	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	185	100	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.9	5.0	%	ISO 527-2/5
Nominal Tensile Strain at Break (23°C)	3.5	--	%	ISO 527-2/50
Flexural Modulus ⁹ (23°C)	11500	6800	MPa	ISO 178/A
Flexural Stress ¹⁰				
3.5% Strain	--	145	MPa	ISO 178/A
23°C	280	160	MPa	ISO 178

Flexural Strain at Flexural Strength ¹¹ (23°C)	3.5	5.0	%	
Electrical Resistivity	40	--	ohms·cm	ISO 3915
Burning Behavior ¹² (> 1.00 mm)	passed	--		ISO 3795
ISO Shortname	PA 6, GHR, 14-140, (GF+CF) 30	--		ISO 1874
Residual Moisture Content	0.030 to 0.12		%	Karl Fisher
Films	Dry	Conditioned	Unit	Test Method
Film Puncture Energy				ISO 6603-2
-- ¹³	1.70	--	J	
-- ¹⁴	2.40	--	J	
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	< 10	--	kJ/m ²	
23°C	11	--	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	60	60	kJ/m ²	
23°C	75	80	kJ/m ²	
Notched Izod Impact Strength (23°C)	10	--	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	60	60	kJ/m ²	
23°C	65	65	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	219	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	205	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	140	--	°C	ISO 75-2/C
Vicat Softening Temperature	214	--	°C	ISO 306/B120
Melting Temperature ¹⁵	220	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 55°C	2.0E-5	--	cm/cm/°C	
Transverse : 23 to 55°C	9.0E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (Solution A)	150	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.800 mm)	HB	--		UL 94
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.	60x60x2; MT 80°C; 600 Bar	
2.	60x60x2	
3.	60x60x2; MT 80°C; 600 Bar	
4.	60x60x2	
5.	150x150x3	
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.	10°C/min	

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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

