Durethan® B 31 F 000000

Polyamide 6

LANXESS Corporation

Message:

PA 6, non-reinforced, extrusion, low viscosity, no additives

General Information				
Features	Low viscosity No additive			
Agency Ratings	EC 1907/2006 (REACH)			
Processing Method	Extrusion			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (23°C)	1.14	--	g/cm³	ISO 1183
Apparent Density	0.70	--	g/cm³	ISO 60
Water Absorption				ISO 62
Saturated, 23°C	10	--	%	ISO 62
Equilibrium, 23°C, 50% RH	3.0	--	%	ISO 62
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Ball Indentation Hardness	140	50.0	MPa	ISO 2039-1
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	2800	800	MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	75.0	35.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	4.0	25	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	20	> 50	%	ISO 527-2/50
Flexural Modulus [1] (23°C)	2600	700	MPa	ISO 178/A
Flexural Stress (3.5% Strain,23°C)	90.0	20.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength [2] (23°C)	5.0	8.0	%	ISO 178/A
ISO Shortname	PA 6, E, 14-030	--		ISO 1874
Residual Moisture Content	0.030 - 0.12		%	Karl Fisher
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	5.0	< 5.0	kJ/m²	ISO 179/1eA
23°C	5.0	50	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	55 kJ/m²		ISO 179/1eU

23°C	No Break	No Break		ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	7.0	7.5	kJ/m²	ISO 180/1A
23°C	7.0	50	kJ/m²	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	150	--	°C	ISO 75-2/B
1.8 MPa, not annealed	50.0	--	°C	ISO 75-2/A
8.0 MPa, not annealed	40.0	--	°C	ISO 75-2/C
Vicat Softening Temperature	200	--	°C	ISO 306/B120
Melting Temperature [3]	222	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	8.0E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	8.0E-5	--	cm/cm/°C	ISO 11359-2
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+14	1.0E+13	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+14	1.0E+12	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	30	35	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
23°C, 100 Hz	3.90	18.0		IEC 60250
23°C, 1 MHz	3.50	4.00		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
Oxygen Index [4]	24	--	%	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	260 - 280		°C	
Mold Temperature	80.0 - 100		°C	
NOTE				
1.	2.0 mm/min			

2.	2 mm/min
3.	10°C/min
4.	Procedure A

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