Durethan® DP 2131/20 W1 901317

Polyamide 6

LANXESS GmbH

Message:

PA 6, 20 % glass fibers, injection molding, weather stabilized, improved surface finish

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight			
Features	Good weather resistance Excellent appearance			
Agency Ratings	EC 1907/2006 (REACH)			
Processing Method	Injection molding			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (23°C)	1.28	--	g/cm³	ISO 1183
Apparent Density	0.70	--	g/cm³	ISO 60
Molding Shrinkage				ISO 2577
Vertical flow direction: 260°C, 3.00mm [1]	0.67	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 3.00mm [2]	0.20	--	%	ISO 2577
Flow direction: 260°C, 3.00mm [3]	0.22	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 3.00mm [4]	0.070	--	%	ISO 2577
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Ball Indentation Hardness	198	--	MPa	ISO 2039-1
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	7600	4700	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	150	100	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.0	7.0	%	ISO 527-2/5
Flexural Modulus [5] (23°C)	6400	4100	MPa	ISO 178/A
Flexural Stress				ISO 178/A
3.5% strain, 23°C	197	110	MPa	ISO 178/A
23°C [6]	212	130	MPa	ISO 178/A
Flexural Strain at Flexural Strength [7] (23°C)	4.1	6.4	%	ISO 178/A
Burning Behavior [8] (> 1.00 mm)	passed	--		ISO 3795
ISO Shortname	PA 6, GHLR, 14-080, GF20	--		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	< 10	--	kJ/m²	ISO 179/1eA
23°C	< 10	--	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	40	40	kJ/m²	ISO 179/1eU
23°C	45	60	kJ/m²	ISO 179/1eU
Notched Izod Impact				ISO 180/1A
-30°C	< 10	< 10	kJ/m²	ISO 180/1A
23°C	< 10	< 10	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength				ISO 180/1U
-30°C	30	30	kJ/m²	ISO 180/1U
23°C	30	40	kJ/m²	ISO 180/1U
Multi-Axial Instrumented Impact Energy				ISO 6603-2
-30°C	4.00	--	J	ISO 6603-2
23°C	5.00	10.0	J	ISO 6603-2
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, not annealed	213	--	°C	ISO 75-2/B
1.8 MPa, not annealed	215	--	°C	ISO 75-2/A
8.0 MPa, not annealed	73.0	--	°C	ISO 75-2/C
Vicat Softening Temperature	> 200	--	°C	ISO 306/B120
Melting Temperature [9]	222	--	°C	ISO 11357-3
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 55°C	2.3E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	8.9E-5	--	cm/cm/°C	ISO 11359-2
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	2.0E+15	2.0E+13	ohms	IEC 60093
Volume Resistivity (23°C)	3.0E+15	1.0E+12	ohms·cm	IEC 60093
Relative Permittivity				IEC 60250
23°C, 100 Hz	4.10	9.34		IEC 60250
23°C, 1 MHz	3.74	4.27		IEC 60250
Dissipation Factor				IEC 60250
23°C, 100 Hz	8.0E-3	0.22		IEC 60250
23°C, 1 MHz	0.018	0.065		IEC 60250
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating				UL 94
0.800 mm	HB	--		UL 94

1.60 mm	HB	--		UL 94

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 - 120		°C

NOTE	
1.	150x105x3mm, 80°C MT, 500 bar
2.	150x105x3mm
3.	150x105x3mm, 80°C MT, 500 bar
4.	150x105x3mm
5.	2.0 mm/min
6.	2.0 mm/min
7.	2 mm/min
8.	US-FMVSS302
9.	10°C/min

Recommended distributors for this material

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