Durethan® DP 2131/20 H2.0 900051

Polyamide 6

LANXESS GmbH

Message:

PA 6, 20 % glass fibers, injection molding, heat-aging stabilized, improved surface finish, improved resistance to weathering

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight			
Additive	heat stabilizer			
Features	Good weather resistance Thermal Stability 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: 280°C, 2.00mm [1]	0.54	--	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm [2]	0.19	--	%	ISO 2577
Flow direction: 280°C, 2.00mm [3]	0.35	--	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm [4]	0.12	--	%	ISO 2577
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	7600	--	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	150	--	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.0	--	%	ISO 527-2/5
Flexural Modulus [5] (23°C)	6400	--	MPa	ISO 178/A
Flexural Stress				ISO 178/A
3.5% strain, 23°C	200	--	MPa	ISO 178/A
23°C [6]	225	--	MPa	ISO 178/A
Flexural Strain at Flexural Strength [7] (23°C)	4.5	--	%	ISO 178/A
ISO Shortname	PA 6, GHR, 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	35	--	kJ/m²	ISO 180/1U
23°C	35	--	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	--	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
Vicat Softening Temperature	> 200	--	°C	ISO 306/B120
Melting Temperature [8]	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.	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

Recommended distributors for this material

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