LEXAN™ HFD4271 resin

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

LEXAN HFD4271 is a 10% glass filled, high flow, impact modified, injection moldable grade designed for high flow and superior surface appearance. HFD4271 has enhanced mold release, impact ductility and broad color space.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 10% filler by weight		
Additive	Impact modifier demoulding		
Features	High liquidity Good appearance ductility		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	1.26	g/cm³	ASTM D792
--	1.25	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	14.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.20 - 0.30	%	Internal method
Transverse flow: 3.20mm	0.40 - 0.50	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.13	%	ISO 62
Equilibrium, 23°C, 50% RH	0.040	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1]	3700	MPa	ASTM D638
Tensile Strength			
Yield [2]	53.0	MPa	ASTM D638
Yield	59.0	MPa	ISO 527-2/5
Fracture [3]	39.0	MPa	ASTM D638
Fracture	48.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield [4]	3.0	%	ASTM D638
Yield	3.0	%	ISO 527-2/5

Fracture	9.0	%	ISO 527-2/5
Flexural Modulus [5] (50.0 mm Span)	3300	MPa	ASTM D790
Flexural Strength [6] (Yield, 50.0 mm Span)	95.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [7]			ISO 179/1eA
-30°C	9.0	kJ/m^2	ISO 179/1eA
23°C	18	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength [8]			ISO 179/1eU
-30°C	100	kJ/m^2	ISO 179/1eU
23°C	110	kJ/m^2	ISO 179/1eU
Notched Izod Impact			
23°C	230	J/m	ASTM D256
-30°C [9]	9.0	kJ/m^2	ISO 180/1A
23°C [10]	20	kJ/m^2	ISO 180/1A
Unnotched Izod Impact			
23°C	1700	J/m	ASTM D4812
-30°C [11]	68	kJ/m^2	ISO 180/1U
23°C [12]	93	kJ/m^2	ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	36.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	131	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	125	°C	ASTM D648
Vicat Softening Temperature	135	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 40°C	4.0E-5	cm/cm/°C	ASTM E831
Flow: 23 to 80°C	3.0E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	7.0E-5	cm/cm/°C	ASTM E831
Lateral: 23 to 80°C	8.0E-5	cm/cm/°C	ISO 11359-2
RTI Elec	80.0	°C	UL 746
RTI Imp	80.0	°C	UL 746
RTI	80.0	°C	UL 746
Flammability	**Nominal Value**		**Test Method**
Flame Rating (0.400 mm)	HB		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	

Rear Temperature	266 - 288	°C
Middle Temperature	277 - 299	°C
Front Temperature	288 - 310	°C
Nozzle Temperature	282 - 304	°C
Processing (Melt) Temp	288 - 310	°C
Mold Temperature	71.1 - 93.3	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	40 - 70	rpm
Vent Depth	0.025 - 0.076	mm

NOTE	
1.	5.0 mm/min
2.	Type 1, 5.0 mm/min
3.	Type 1, 5.0 mm/min
4.	Type 1, 5.0 mm/min
5.	1.3 mm/min
6.	1.3 mm/min
7.	80*10*3 sp=62mm
8.	80*10*3 sp=62mm
9.	80*10*3
10.	80*10*3
11.	80*10*3
12.	80*10*3

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

WECHAT