

LEXAN™ HFD4413 resin

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

LEXAN HFD4413 is a 30% glass filled, injection moldable grade designed for high flow and superior surface appearance. Internal mold release.

General Information			
UL YellowCard	E207780-100921642		
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Mold Release		
Features	Good Surface Finish		
	High Flow		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.43	g/cm ³	ASTM D792
--	1.44	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	16	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	18.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.10 to 0.30	%	
Across Flow : 3.20 mm	0.10 to 0.30	%	
Water Absorption			ISO 62
Saturation, 23°C	0.30	%	
Equilibrium, 23°C, 50% RH	0.12	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	7870	MPa	ASTM D638
Tensile Strength			
Yield ²	111	MPa	ASTM D638
Yield	115	MPa	ISO 527-2/5
Break ³	111	MPa	ASTM D638
Break	125	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	3.0	%	ASTM D638
Yield	2.5	%	ISO 527-2/5
Break	2.1	%	ISO 527-2/5
Flexural Modulus ⁵ (50.0 mm Span)	7760	MPa	ASTM D790
Flexural Strength ⁶ (Yield, 50.0 mm Span)	182	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁷			ISO 179/1eA
-30°C	11	kJ/m ²	
23°C	12	kJ/m ²	
Charpy Unnotched Impact Strength ⁸			ISO 179/1eU
-30°C	49	kJ/m ²	
23°C	40	kJ/m ²	
Notched Izod Impact			
23°C	130	J/m	ASTM D256
-30°C ⁹	10	kJ/m ²	ISO 180/1A
23°C ¹⁰	10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	850	J/m	ASTM D4812
-30°C ¹¹	30	kJ/m ²	ISO 180/1U
23°C ¹²	37	kJ/m ²	ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	17.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	130	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	125	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹³	129	°C	ISO 75-2/Af
Vicat Softening Temperature	143	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 40°C	3.0E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	3.0E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	7.0E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	7.0E-5	cm/cm/°C	ISO 11359-2
RTI Elec	80.0	°C	UL 746
RTI Imp	80.0	°C	UL 746
RTI Str	80.0	°C	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.300 mm	HB		
0.800 mm, Testing by SABIC	HB		
Glow Wire Flammability Index (2.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.00 mm)	850	°C	IEC 60695-2-13
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	48	hr	

Suggested Max Moisture	0.020	%
Suggested Shot Size	40 to 60	%
Rear Temperature	266 to 288	°C
Middle Temperature	277 to 299	°C
Front Temperature	288 to 310	°C
Nozzle Temperature	282 to 304	°C
Processing (Melt) Temp	288 to 310	°C
Mold Temperature	71.1 to 93.3	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	40 to 70	rpm
Vent Depth	0.025 to 0.076	mm

NOTE

1.	5.0 mm/min
2.	Type I, 5.0 mm/min
3.	Type I, 5.0 mm/min
4.	Type I, 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
13.	80*10*4 mm

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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