

Product Texts

LEXAN HFD4412 is a 20% glass filled, injection moldable grade designed for high flow and superior surface appearance. Internal mold release.

UL Yellow Card Link [E121562-100872100](https://www.ul.com/lexan-hfd4412)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	14	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
ASTM Data			
Melt Flow Index, MFI	15	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Yield stress	110	MPa	ISO 527
Yield strain	2.8	%	ISO 527
Stress at break	110	MPa	ISO 527
Strain at break	2.7	%	ISO 527
Charpy impact strength, +23°C, 3mm	43	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	48	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	8	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	8	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	42	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 3mm	7	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	7	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	6400	MPa	ASTM D 638
Tensile Strength at Yield	96	MPa	ASTM D 638
Tensile Strength at Break	96	MPa	ASTM D 638
Elongation at Yield	3	%	ASTM D 638
Flexural Modulus	5850	MPa	ASTM D 790
Izod Impact notched, 1/8 in	109	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	830	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	127	°C	ISO 75-1/-2
Vicat softening temperature, 120°C/h 50N	143	°C	ISO 306
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.3	mm	-
Glow Wire Flammability Index (GWFI)	900	°C	IEC 60695-2-12
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	850	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-
Glow Wire Ignition Temperature (GWIT)	875	°C	IEC 60695-2-13
GWIT - thickness tested (2)	2	mm	-
Glow Wire Ignition Temperature (GWIT)	850	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
ASTM Data			
DTUL @ 66 psi	130	°C	ASTM D 648
DTUL @ 264 psi	125	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Water absorption	0.3	%	Sim. to ISO 62

LEXAN™ Copolymer HFD4412 - Americas

PC-GF20

Saudi Basic Industries Corporation (SABIC)

Humidity absorption	0.12	%	Sim. to ISO 62
Density	1350	kg/m ³	ISO 1183
Density	1300	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	290 - 310	°C	-
Mold temperature	70 - 95	°C	-
Zone 1	265 - 290	°C	-
Zone 2	275 - 300	°C	-
Zone 3	290 - 310	°C	-
Screw speed	40 - 70	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics**Processing**

Injection Molding

Regional Availability

North America