SABIC Innovative Plastics™

Lexan* Resin FL1600

Americas: COMMERCIAL

Various weight reductions at 0.250" (6.35 mm) wall. Excellent processing impact resistance, flex strength and rigidity.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
FOAM - MECHANICAL 6.4 mm Wt Reduction	10	%	-
Tensile Stress, yield, 6.35 mm	48	MPa	ASTM D 638
Tensile Strain, break, 6.35 mm	5.2	%	ASTM D 638
Tensile Modulus, 6.4 mm	2440	MPa	ASTM D 638
Flexural Stress, yield, 6.4 mm	89	MPa	ASTM D 790
Flexural Modulus, 6.4 mm	2750	MPa	ASTM D 790
IMPACT	Value	Unit	Standard
FOAM - IMPACT 6.4 mm Wt Reduction	10	%	-
Izod Impact, unnotched, 23°C	747	J/m	ASTM D 4812
Falling Dart Impact, 23°C	56	J	SABIC Method
THERMAL	Value	Unit	Standard
FOAM - THERMAL 6.4mm Wt Reduction	10	%	-
HDT, 0.45 MPa, 6.4 mm, unannealed	137	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	126	°C	ASTM D 648
CTE, -40°C to 95°C, flow	5.04E-05	1/°C	ASTM E 831
Specific Heat	1.15	J/g-°C	ASTM C 351
PHYSICAL	Value	Unit	Standard
FOAM - PHYSICAL 6.4mm Wt Reduction	10	%	-
Specific Gravity	1.25	-	ASTM D 792
Specific Gravity, foam molded	1.13	-	ASTM D 792
Water Absorption, 24 hours	0.14	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.33	%	ASTM D 570
Mold Shrinkage, flow, 6.4 mm	0.5 - 0.7	%	SABIC Method
ELECTRICAL	Value	Unit	Standard
FOAM - ELECTRICAL 6.4 mm Wt Reduction	20	%	-
Volume Resistivity	2.8E+17	Ohm-cm	ASTM D 257
Surface Resistivity	>1.1E+17	Ohm	ASTM D 257
Relative Permittivity, 100 Hz	2.45	-	ASTM D 150
Relative Permittivity, 1 MHz	2.44	-	ASTM D 150
Dissipation Factor, 100 Hz	0.007	-	ASTM D 150
Dissipation Factor, 1 MHz	0.0042	-	ASTM D 150

Source GMD, last updated:08/07/1989

Processing

Parameter		
Structural Foam Molding	Value	Unit
Blowing Agent, Physical System	Nitrogen Gas	-
Blowing Agent, Chemical System	FLC298	-
Drying Time (Blowing Agent)	4	hrs

Drying Temperature (Blowing Agent)	105	°C
Concentration Range (Blowing Agent)	3 - 5	%
Recommended Concentration (Blowing Agent)	1.5	%
Drying Temperature (Resin)	120	°C
Drying Time (Resin)	3 - 4	hrs
Drying Time (Resin, Cumulative)	48	hrs
Melt Temperature	290 - 310	°C
Nozzle Temperature	270 - 295	°C
Front Temperature	290 - 305	°C
Middle Temperature	290 - 305	°C
Rear Temperature	255 - 280	°C
Mold Temperature	70 - 95	°C

Source GMD, last updated:08/07/1989

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.
(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.