GE Plastics
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Pittsfield, MA 01201

GE Plastics

LEXAN® 104R

North America: Commercial

Design Solution Center >> Design Tools >> Datasheets

UL rated HB as of 10/97. 200 series recommended when V-2 rating required.
Nonhalogenated. 7.0 MFR, for thicker sections without sinks. FDA compliant (color limited). Internal mold release.

Processing

INJECTION MOULDING-USA

LEX-IM-03

Drying Temperature	250	deg F
Drying Time (basic)	3-4	h
Drying Time (cumulative)	48	h
Moisture Content, Max	0.02	%
Moisture Content, Min	-	%
Melt Temperature	590-630	deg F
Nozzle Temperature	580-620	deg F
Front Temperature	590-630	deg F
Middle Temperature	570-610	deg F
Rear Temperature	550-590	deg F
Mold Temperature	180-240	deg F
Back Pressure	50-100	psi
Screw Speed	40-70	rpm
Suggested shot size	40-60	%
Clamp Tonnage	3-5	tons/psi
Vent Depth	.001-.003	inch

Source Eris, last updated: 11/06/2001

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Properties

MECHANICAL

Property	Typical Data	Unit	Method
Tensile Str, yld, Type I, 2.0 in/min	9000	psi	ASTM D 638
Tensile Str, brk, Type I, 2.0 in/min	10000	psi	ASTM D 638
Tensile Elong, yld, Type I, 2.0 in/min	7.0	%	ASTM D 638
Tensile Elong, brk, Type I, 2.0 in/min	135.0	%	ASTM D 638

Flex Stress, yld, 0.05 in/min, 2" span	14200	psi	ASTM D 790
Flex Mod, 0.05 in/min, 2" span	340000	psi	ASTM D 790
Hardness, Rockwell M	70	-	ASTM D 785
Hardness, Rockwell R	118	-	ASTM D 785
Taber Abrasion, CS-17, 1 kg	10	mg/1000cy	ASTM D 1044
Fatigue Limit, 2.5 MM cycles	1000	psi	ASTM D 671
IMPACT			
Property	**Typical Data**	**Unit**	**Method**
Izod Impact, unnotched, 73F	60.0	ft-lb/in	ASTM D 4812
Izod Impact, notched, 73F	17.0	ft-lb/in	ASTM D 256
Tensile Impact, Type "S"	300	ft-lb/in2	ASTM D 1822
Falling Dart Impact (D 3029), 73F	125	ft-lbs	ASTM D 3029
THERMAL			
Property	**Typical Data**	**Unit**	**Method**
Vicat Softening Temp, Rate B	310	deg F	ASTM D 1525
HDT, 66 psi, 0.250", unannealed	280	deg F	ASTM D 648
HDT, 264 psi, 0.250", unannealed	270	deg F	ASTM D 648
CTE, flow, -40F to 200F	3.8 E-5	1/F	ASTM E 831
Specific Heat	0.30	BTU/lb-F	ASTM C 351
Thermal Conductivity	0.19	W/m-C	ASTM C 177
Thermal Index, Elec Prop	130	deg C	UL 746B
Thermal Index, Mech Prop with impact	130	deg C	UL 746B
Thermal Index, Mech prop without impact	130	deg C	UL 746B
PHYSICAL			
Property	**Typical Data**	**Unit**	**Method**
Specific Gravity, solid	1.20	-	ASTM D 792
Specific Volume	23.10	in3/lb	ASTM D 792
Density	0.043	lb/in3	ASTM D 792
Water Absorption, 24 hours @ 73F	0.150	%	ASTM D 570
Water Absorption, equilibrium, 73F	0.35	%	ASTM D 570
Water Absorption, equilibrium, 212F	0.58	%	ASTM D 570
Mold Shrinkage, flow, 0.125"	5-7	in/in E-3	ASTM D 955
Melt Flow Rate, 300C/1.2 kgf (O)	7.0	g/10 min	ASTM D 1238
OPTICAL			
Property	**Typical Data**	**Unit**	**Method**
Light Transmission, 0.100"	88.0	%	ASTM D 1003
Haze, 0.100"	1.0	%	ASTM D 1003
Refractive Index	1.586	-	ASTM D 542
ELECTRICAL			

Property	Typical Data	Unit	Method
Volume Resistivity	>1E17	ohm-cm	ASTM D 257
Dielectric Strength, in air, 125 mils	380	V/mil	ASTM D 149
Dielectric Constant, 60 Hz	3.17	-	ASTM D 150
Dielectric Constant, 1 MHz	2.96	-	ASTM D 150
Dissipation Factor, 60 Hz	0.0009	-	ASTM D 150
Dissipation Factor, 1 MHz	0.0100	-	ASTM D 150
Hot Wire Ignition (+/- 0.125")	2	PLC Code	UL 746A
High Voltage Arc Track Rate (+/- 0.125")	2	PLC Code	UL 746A
High Amp Arc Ign, surface (+/- 0.125")	1	PLC Code	UL 746A
Comparative Track Index (+/- 0.125")	2	PLC Code	UL 746A
FLAME CHARACTERISTICS			
Property	**Typical Data**	**Unit**	**Method**
UL File Number, USA	E121562	-	-
HB Rated (tested thickness)	0.058	inch	UL 94

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THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.