

## Lexan\* Resin 194

## Americas: COMMERCIAL

Nonhalogenated. 8.5 MFR. High impact. Thick wall sections. Opaques only. FDA food contact compliant in limited colors.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	58	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	63	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	7	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	115	%	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	81	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2130	MPa	ASTM D 790
Hardness, Rockwell M	68	-	ASTM D 785
Hardness, Rockwell R	118	-	ASTM D 785
Taber Abrasion, CS-17, 1 kg	20	mg/1000cy	ASTM D 1044
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	3204	J/m	ASTM D 4812
Izod Impact, notched, 23°C	747	J/m	ASTM D 256
Tensile Impact, Type "S"	420	kJ/m <sup>2</sup>	ASTM D 1822
Falling Dart Impact (D 3029), 23°C	169	J	ASTM D 3029
THERMAL	Value	Unit	Standard
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	6.48E-05	1/°C	ASTM E 831
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.19	-	ASTM D 792
Specific Volume	0.84	cm <sup>3</sup> /g	ASTM D 792
Water Absorption, 24 hours	0.19	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.37	%	ASTM D 570
Water Absorption, equilibrium, 100°C	0.54	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 300°C/1.2 kgf	8.5	g/10 min	ASTM D 1238
ELECTRICAL	Value	Unit	Standard
Volume Resistivity	2.5E+17	Ohm-cm	ASTM D 257
Dielectric Strength, in air, 3.2 mm	16.3	kV/mm	ASTM D 149
Relative Permittivity, 1 MHz	3	-	ASTM D 150
Dissipation Factor, 50/60 Hz	0.0009	-	ASTM D 150
Dissipation Factor, 1 MHz	0.01	-	ASTM D 150

Source GMD, last updated:01/03/2006

### Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	120	°C
Drying Time	3 - 4	hrs

Drying Time (Cumulative)	48	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	310 - 330	°C
Nozzle Temperature	305 - 325	°C
Front - Zone 3 Temperature	310 - 330	°C
Middle - Zone 2 Temperature	300 - 320	°C
Rear - Zone 1 Temperature	290 - 310	°C
Mold Temperature	80 - 115	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	40 - 60	%
Vent Depth	0.025 - 0.076	mm

Source GMD, last updated:01/03/2006

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.

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