

## Lexan\* Resin 2034

## Europe-Africa-Middle East: COMMERCIAL

LEXAN 2034 is a medium viscosity flame retardant grade. The material is UV-stabilized. Glow wire at 960C also satisfies EDF spec HN 60-S-02.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Taber Abrasion, CS-17, 1 kg	9	mg/1000cy	SABIC Method
Tensile Stress, yield, 50 mm/min	65	MPa	ISO 527
Tensile Stress, break, 50 mm/min	70	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Tensile Strain, break, 50 mm/min	100	%	ISO 527
Tensile Modulus, 1 mm/min	2350	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	95	MPa	ISO 178
Flexural Modulus, 2 mm/min	2300	MPa	ISO 178
Hardness, H358/30	100	MPa	ISO 2039-1
Hardness, Rockwell R	120	-	ISO 2039-2
IMPACT	Value	Unit	Standard
Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C	NB	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	8	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	8	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	9	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	9	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m <sup>2</sup>	ISO 179/1eU
THERMAL	Value	Unit	Standard
Thermal Conductivity	0.2	W/m-°C	ISO 8302
CTE, 23°C to 80°C, flow	7.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Ball Pressure Test, approximate maximum	140	°C	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	144	°C	ISO 306
Vicat Softening Temp, Rate B/120	145	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	140	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	129	°C	ISO 75/Ae
Relative Temp Index, Elec	80	°C	UL 746B
Relative Temp Index, Mech w/impact	80	°C	UL 746B
Relative Temp Index, Mech w/o impact	80	°C	UL 746B
PHYSICAL	Value	Unit	Standard
Mold Shrinkage on Tensile Bar, flow (2)	0.4 - 0.6	%	SABIC Method
Density	1.24	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/sat)	0.32	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.13	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	8	cm <sup>3</sup> /10 min	ISO 1133
OPTICAL	Value	Unit	Standard

Light Transmission	88 - 90	%	ASTM D 1003
Haze	<0.8	%	ASTM D 1003
Refractive Index	1.586	-	ISO 489
<b>ELECTRICAL</b>	<b>Value</b>	<b>Unit</b>	<b>Standard</b>
Volume Resistivity	>1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 0.8 mm	35	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	27	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	IEC 60243-1
Relative Permittivity, 50/60 Hz	2.7	-	IEC 60250
Relative Permittivity, 1 MHz	2.7	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.001	-	IEC 60250
Dissipation Factor, 1 MHz	0.01	-	IEC 60250
<b>FLAME CHARACTERISTICS</b>	<b>Value</b>	<b>Unit</b>	<b>Standard</b>
UL Recognized, 94V-2 Flame Class Rating (3)	1.5	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating (3)	2.5	mm	UL 94
Glow Wire Flammability Index 850°C, passes at	1	mm	IEC 60695-2-12
Glow Wire Flammability Index 960°C, passes at	1.8	mm	IEC 60695-2-12
Oxygen Index (LOI)	40	%	ISO 4589

Source GMD, last updated:11/06/2000

## Processing

Parameter	Value	Unit
<b>Injection Molding</b>		
Drying Temperature	120	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	280 - 310	°C
Nozzle Temperature	270 - 290	°C
Front - Zone 3 Temperature	280 - 310	°C
Middle - Zone 2 Temperature	270 - 290	°C
Rear - Zone 1 Temperature	260 - 280	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	80 - 110	°C

Source GMD, last updated:11/06/2000

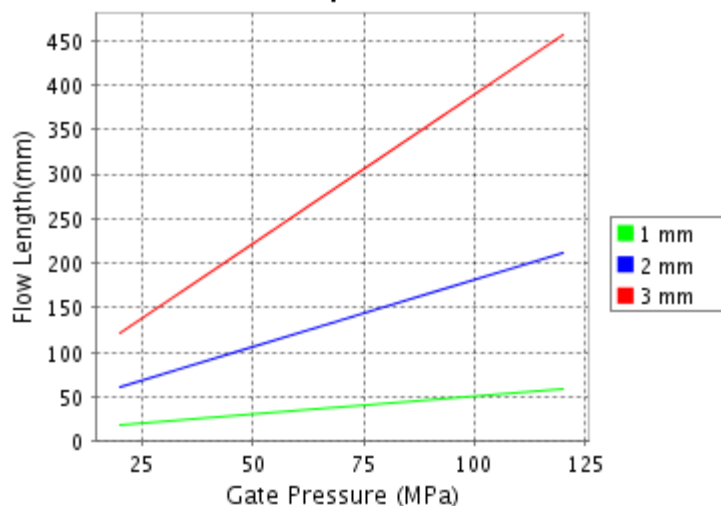
## CALCULATED FLOW LENGTH INDICATION

Moldflow® Radial Flow Analysis

Lexan® 1278R

Melt Temperature : 300°C

Mold Temperature : 90°C



**Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.**

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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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