

## Lexan\* Resin FL930

## Americas: COMMERCIAL

Various weight reductions at 0.250" (6.35 mm) wall, 30% GR. Superior flex strength/modulus, good tensile strength. V-0/5VA at 0.250" (6.35 mm).

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
	Value	Unit	Standard
<b>MECHANICAL</b>			
FOAM - MECHANICAL 6.4 mm Wt Reduction	10	%	-
Tensile Stress, yield, 6.35 mm	72	MPa	ASTM D 638
Tensile Strain, break, 6.35 mm	3	%	ASTM D 638
Tensile Modulus, 6.4 mm	6920	MPa	ASTM D 638
Flexural Stress, yield, 6.4 mm	127	MPa	ASTM D 790
Flexural Modulus, 6.4 mm	6890	MPa	ASTM D 790
<b>IMPACT</b>			
FOAM - IMPACT 6.4 mm Wt Reduction	10	%	-
Izod Impact, unnotched, 23°C	480	J/m	ASTM D 4812
Falling Dart Impact, 23°C	40	J	SABIC Method
<b>THERMAL</b>			
FOAM - THERMAL 6.4mm Wt Reduction	10	%	-
HDT, 0.45 MPa, 6.4 mm, unannealed	143	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	138	°C	ASTM D 648
CTE, -40°C to 95°C, flow	2.16E-05	1/°C	ASTM E 831
Specific Heat	1.04	J/g-°C	ASTM C 351
Thermal Conductivity	0.16	W/m-°C	ASTM C 177
Relative Temp Index, Elec	110	°C	UL 746B
Relative Temp Index, Mech w/impact	110	°C	UL 746B
Relative Temp Index, Mech w/o impact	110	°C	UL 746B
<b>PHYSICAL</b>			
FOAM - PHYSICAL 6.4mm Wt Reduction	10	%	-
Specific Gravity	1.43	-	ASTM D 792
Specific Gravity, foam molded	1.29	-	ASTM D 792
Water Absorption, 24 hours	0.12	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.26	%	ASTM D 570
Mold Shrinkage, flow, 6.4 mm	0.2 - 0.4	%	SABIC Method
<b>ELECTRICAL</b>			
FOAM - ELECTRICAL 6.4 mm Wt Reduction	20	%	-
Volume Resistivity	2.4E+17	Ohm-cm	ASTM D 257
Surface Resistivity	>1.1E+17	Ohm	ASTM D 257
Relative Permittivity, 100 Hz	2.7	-	ASTM D 150
Relative Permittivity, 1 MHz	2.61	-	ASTM D 150
Dissipation Factor, 100 Hz	0.0034	-	ASTM D 150
Dissipation Factor, 1 MHz	0.0075	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	7	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	1	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	3	PLC Code	UL 746A

High Ampere Arc Ign, surface {PLC}	4	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	4	PLC Code	UL 746A
<b>FLAME CHARACTERISTICS</b>	<b>Value</b>	<b>Unit</b>	<b>Standard</b>
FOAM - Flame Class Minimum Density	0.9	g/cm <sup>3</sup>	-
UL Recognized, 94V-0 Flame Class Rating (3)	5.99	mm	UL 94
UL Recognized, 94-5VA Rating (3)	5.99	mm	UL 94
Oxygen Index (LOI)	40.4	%	ASTM D 2863

Source GMD, last updated:08/07/1989

## Processing

Parameter	Value	Unit
Structural Foam Molding		
Blowing Agent, Physical System	Nitrogen	-
Blowing Agent, Chemical System	FLC95	-
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 - 315	°C
Nozzle Temperature	270 - 295	°C
Front Temperature	295 - 310	°C
Middle Temperature	295 - 310	°C
Rear Temperature	255 - 265	°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.

**Disclaimer** : THE MATERIALS AND PRODUCTS OF THE BUSINESSES MAKING UP THE SABIC INNOVATIVE PLASTICS COMPANY, ITS SUBSIDIARIES AND AFFILIATES ("SABIC IP"), ARE SOLD SUBJECT TO SABIC IP' S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SABIC IP MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (I) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (II) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SABIC IP MATERIALS, PRODUCTS, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SABIC IP' S STANDARD CONDITIONS OF SALE, SABIC IP AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS OR PRODUCTS DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of SABIC IP' s materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating SABIC IP materials or products will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of SABIC IP' s Standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by SABIC IP. No statement contained herein concerning a

possible or suggested use of any material, product or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of SABIC Innovative Plastics Company or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product or design in the infringement of any patent or other intellectual property right

\* Lexan is a trademark of the SABIC Innovative Plastics Company

© 1997-2008 SABIC Innovative Plastics Company. All rights reserved