



**PLEXIGLAS®**  
BY ARKEMA

## Plexiglas® SG PLUS

**CRAZE-RESISTANT IMPACT ACRYLIC SHEET**

Plexiglas® SG PLUS is a craze-resistant impact acrylic sheet that not only exhibits outstanding thermoforming definition, but is also well suited for both channel letter and pan face signs.

Designed specifically to meet the stringent requirements of the quantity and custom sign markets, Plexiglas® SG PLUS acrylic sheet has the properties you desire: impact resistance, craze resistance, and enhanced machinability.

It's an excellent substrate for channel letters. At eight times the impact strength of standard acrylic, it will resist in-shop, in-transit, installation, and in-service breakage. If your sign is a pan face, Plexiglas® SG PLUS craze-resistant impact acrylic sheet offers outstanding thermoforming definition along with enhanced craze resistance to protect from paint solvents.

Plexiglas® SG PLUS craze-resistant impact acrylic sheet also provides excellent craze-resistance properties even after exposure to the harsh solvents, paints, paint thinners, and cleaners typically used in the sign industry.

For more information, contact your local Altuglas International sales representative or call 800-523-7500.

- **Enhanced machinability**
- **Easily fabricated and decorated**
- **Outstanding thermoforming definition**
- **Excellent weatherability and optical clarity**
- **Resistant to chemicals**
- **Available in colorless, white, and several popular sign colors**
- **LED Hiding sign colors available**
- **Available on reels up to 108" wide as well as sheet stock**
- **Exceptional lot-to-lot consistency**

# Plexiglas® SG PLUS

## CRAZE-RESISTANT IMPACT ACRYLIC SHEET

### TYPICAL STANDARD PROPERTIES

PROPERTIES	TEST METHOD	UNITS	VALUE
<b>Physical</b>			
Nominal Thickness for data unless otherwise noted		in	0.118"
Specific Gravity	ASTM D-792	N/A	1.18
Rockwell Hardness	ASTM D-785	M scale	75.2
<b>Optical</b>			
Luminous Transmittance <sup>1</sup>	ASTM D-1003	%	91.1
Haze <sup>1</sup>	ASTM D-1003	%	2.5
Yellowness Index <sup>1</sup>	ASTM D-1925	N/A	0.3
<b>Mechanical</b>			
Tensile Strength, Maximum	ASTM D-638	psi	8,100
Tensile Elongation	ASTM D-638	%	4.8
Tensile Modulus of Elasticity	ASTM D-638	psi	360,000
Flexural Strength, Maximum	ASTM D-790	psi	14,000
Flexural Modulus of Elasticity	ASTM D-790	psi	390,000
Notched Izod Impact @ 73°F (23°C)	ASTM D-256	ft-lb/in	0.68
Un-notched Charpy @ 73°F (23°C)	ASTM D-256	ft-lb/0.5"x1" section	18.1
<b>Thermal</b>			
Deflection Temperature under Flexural Load @ 264psi – unannealed <sup>2</sup>	ASTM D-648	°F	184
Coefficient of Thermal Expansion	ASTM D-696	in/in/ °F x10 <sup>-5</sup>	4.1
Coefficient of Thermal Conductivity <sup>2</sup>	ASTM C-177	BTU/(hr)(ft <sup>2</sup> )(°F/in)	0.63
Maximum Recommended Continuous Service Temperature	N/A	°F	140
Recommended Thermoforming Temperature	N/A	°F	280-350
<b>Craze Resistance</b>			
Constant Stress Craze Resistance, IPA	Modified ARTC Method	psi	1,600
Constant Stress Craze Resistance, Aromatic / Alcohol Blend	Modified ARTC Method	psi	1,325
<b>Flammability<sup>3</sup> &amp; Specification Compliance</b>			
Horizontal Burn Rate <sup>1</sup>	ASTM D-635	in/min	1.0
Smoke Density	ASTM D-2843	%	3.1
Self Ignition Temperature	ASTM D-1929	°F	810
Plastics Component – QMFZ2.E39437 Flammability Classification	UL 94	—	94HB (≥ 0.060")
Plastics Component – QMFZ2.E39437 Outdoor Suitability	UL 746C	—	f1 (≥ 0.060" colorless) f2 (≥ 0.060" ALL)
International Building Code	IBC 2606.4	—	CC2 (0.118" – 0.177")
Miami-Dade County Product Control Division	NOA # 11-1116.04	—	PASS (0.093" – 0.375")
Florida Building Code	FL #15786	—	PASS (0.093" - 0.375")
FMVSS 205 – Federal Motor Vehicle Safety Glazing	ANSI Z26.1	—	AS-5, AS-6, AS-7

Data given are average values and should not be used for specification purposes.

- This property will change with thickness. The value given is for the thickness indicated in the column heading unless otherwise noted.
- Tests performed on 0.177" thickness.
- Flammability tests are small scale tests and may not be indicative of how materials will perform in an actual situation.

### COLOR OFFERING

COLORLESS			
WHITE	67328	62447	
RED	62157	62283	62793
BLACK	62025		
YELLOW	62037		
BLUE	62114	62051	
ORANGE	62119		

### PRODUCT OFFERING

Colorless + 67328 White

THICKNESS	SHEET SIZE	REEL WIDTHS
0.118"	48" x 96"	48"
0.150"	60" x 96"	60"
0.177"	72" x 96"	72"
	51" x 100"	96"
	63" x 100"	100"
	75" x 100"	108"

Custom widths are also available.

**Altuglas International**  
 Arkema Inc.  
 100 PA Rt. 413  
 Bristol, PA 19007  
 TEL 800.523.7500  
 FAX 215.826.2698  
[www.altuglasint.com](http://www.altuglasint.com)  
[www.plexiglas.com](http://www.plexiglas.com)

Plexiglas® acrylic plastic is a combustible thermoplastic. Observe fire precautions appropriate for comparable forms of wood and paper. For building uses, check code approvals. Impact resistance is a factor of thickness. Avoid exposure to heat or aromatic solvents. Clean with soap and water. Avoid abrasives.

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, Arkema expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement.

See MSDS for Health & Safety Considerations.  
 Altuglas® and Plexiglas® are registered trademarks of Arkema.  
 ©2013 Arkema Inc. All rights reserved.