

## 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.

- Enhanced machinability
- Easily fabricated and decorated
- Outstanding thermoforming definition
- Eight times tougher than standard acrylic
- Excellent weatherability and optical clarity
- Resistant to chemicals
- Available in colorless, white, and several popular sign colors
- Available on reels up to 108" wide as well as sheet stock
- Exceptional lot-to-lot consistency



### COLOR OFFERINGS

<b>Colorless</b>			
<b>White</b>		67328	62447
<b>Red</b>		62157	62283 62793
<b>Black</b>		62025	
<b>Yellow</b>		62037	
<b>Blue</b>		62114	62051
<b>Orange</b>		62119	

### PRODUCT OFFERINGS\*

#### Colorless + 67328 White

Thickness	Sheet Size
0.118"	48" x 96"
0.150"	60" x 96"
0.177"	72" x 96"
	51" x 100"
	63" x 100"
	75" x 100"

\* Custom widths are also available.

## TYPICAL VALUES

	Test Method	Unit	Value
<b>Physical properties</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 properties</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 properties</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 properties</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 properties</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 properties</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 # 21-0825.02	-	PASS (0.093" – 0.375")