

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

| | | | |
|------------------|---|-------|-------------|
| Colorless |  | | |
| White |  | 67328 | 62447 |
| Red |  | 62157 | 62283 62793 |
| Black |  | 62025 | |
| Yellow |  | 62037 | |
| Blue |  | 62114 | 62051 |
| Orange |  | 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.

HOW TO PURCHASE

PLEXIGLAS® SG PLUS can be purchased through authorized distributors throughout the Americas.

For product inquiries, technical questions, or contact information for your closest distributor, please contact our customer service team at: Usph-sheet-cs@trinseo.com or 1-800-523-7500

TYPICAL VALUES

| | Test Method | Unit | Value |
|---|----------------------|-----------------------------------|--|
| Physical properties | | | |
| 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 |
| Optical properties | | | |
| Luminous transmittance ¹ | ASTM D-1003 | % | 91.1 |
| Haze ¹ | ASTM D-1003 | % | 2.5 |
| Yellowness index ¹ | ASTM D-1925 | N/A | 0.3 |
| Mechanical properties | | | |
| 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 |
| Thermal properties | | | |
| Deflection temperature under Flexural Load @ 264psi – unannealed ² | ASTM D-648 | °F | 184 |
| Coefficient of thermal expansion | ASTM D-696 | in/in/°F x10 ⁻⁵ | 4.1 |
| Coefficient of thermal conductivity ² | ASTM C-177 | BTU/(hr)(ft ²)(°F/in) | 0.63 |
| Maximum recommended continuous service temperature | N/A | °F | 140 |
| Recommended thermoforming temperature | N/A | °F | 280 - 350 |
| Craze Resistance properties | | | |
| Constant stress craze resistance, IPA | Modified ARTC method | psi | 1,600 |
| Constant stress craze resistance, aromatic/alcohol blend | Modified ARTC method | psi | 1,325 |
| Flammability ³ & specification compliance properties | | | |
| Horizontal burn rate ¹ | 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") |

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

¹This property will change with thickness. The value given is for the thickness indicated in the column heading unless otherwise noted.

²Tests performed on 0.177" thickness.

³Flammability tests are small scale tests and may not be indicative of how materials will perform in an actual situation.

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