



Exceptional Grade for  
Broad-Range Applications

**PLEXIGLAS**<sup>®</sup>  
BY ARKEMA

## Plexiglas<sup>®</sup> MC

ACRYLIC SHEET

Premium-grade Plexiglas<sup>®</sup> MC acrylic sheet satisfies the requirements of nearly all high performance applications. Colorless Plexiglas<sup>®</sup> MC acrylic sheet carries a 10-year limited warranty on light transmission. It is available in a broad range of colors and patterns. Many sign colors have excellent diffusion characteristics for LED hiding.

Plexiglas<sup>®</sup> MC acrylic sheet is a versatile material that has many residential, commercial, industrial and professional uses. Typical applications include:

- Architectural glazing
- POP displays
- Store fixtures
- Brochure holders
- Industrial and school glazing
- Skylights
- Furniture
- Outdoor signs

- **High Performance Acrylic Sheet**
- **Exceptional Optical Clarity**
- **Weather Resistant**
- **Lightweight – Half the weight of glass**
- **Can be easily fabricated and thermoformed**
- **Available in transparent, translucent, and opaque colors**
- **Thickness range from 0.060" - 0.472"**
- **Standard sheet sizes range from 48" x 96" to 72" x 120"**
- **Custom sheet sizes available upon request**

### COLOR OFFERING

Plexiglas<sup>®</sup> MC acrylic sheet is available in more than 28 different standard colors. Visit our chips gallery at [www.plexiglas.com/gallery](http://www.plexiglas.com/gallery) to see our wide range of color offerings.

### TYPICAL STANDARD PROPERTIES

| PROPERTIES  | TEST METHOD                       | UNIT                                | VALUE                                     |
|---|-----------------------------------|-------------------------------------|---|
| <b>PHYSICAL</b>   |                                   |                                     |   |
| Nominal Thickness for data unless otherwise noted                             |                                   | in                                  | 0.236"                                    |
| Specific Gravity  | ASTM D-792                        | ---                                 | 1.19                                      |
| Rockwell Hardness   | ASTM D-785                        | M scale                             | 90  |
| Poisson's Ratio   | N/A                               | ---                                 | 0.35                                      |
| <b>OPTICAL</b>  |                                   |                                     |   |
| Refractive Index (ND @ 73°F)  | ASTM D-542                        | ---                                 | 1.49                                      |
| Luminous Transmittance <sup>1</sup>   | ASTM D-1003                       | %                                   | 92.0                                      |
| Haze <sup>1</sup>   | ASTM D-1003                       | %                                   | < 2.0                                     |
| <b>MECHANICAL</b>   |                                   |                                     |   |
| Tensile Strength, maximum   | ASTM D-638                        | psi                                 | 10,200                                    |
| Tensile Strength, yield   | ASTM D-638                        | psi                                 | 10,200                                    |
| Tensile Elongation  | ASTM D-638                        | %                                   | 4.5                                       |
| Tensile Modulus of Elasticity   | ASTM D-638                        | psi                                 | 450,000                                   |
| Flexural Strength, maximum  | ASTM D-790                        | psi                                 | 15,000                                    |
| Flexural Modulus of Elasticity  | ASTM D-790                        | psi                                 | 450,000                                   |
| Notched Izod Impact @ 73°F (23°C)   | ASTM D-256                        | ft-lb / in                          | 0.3                                       |
| Un-notched Charpy @ 73°F (23°C)   | ASTM D-256                        | ft-lb / 0.5"x1" section             | 7.0                                       |
| <b>THERMAL</b>  |                                   |                                     |   |
| Deflection Temperature under Flexural Load @ 264psi – unannealed <sup>1</sup> | ASTM D-648                        | °F                                  | 200                                       |
| Coefficient of Thermal Expansion at 60°F                                      | ASTM E-831                        | in / in / °F x 10 <sup>-5</sup>     | 3.6                                       |
| Coefficient of Thermal Conductivity   | ASTM C-177                        | BTU / (hr)(ft <sup>2</sup> )(°F/in) | 1.3                                       |
| U-value (summer gain, winter loss)  | N/A                               | BTU / (hr)(ft <sup>2</sup> )(°F/in) | 0.89, 0.96                                |
| Specific Heat Capacity at 77°F  | N/A                               | BTU / (lb °F)                       | 0.35                                      |
| Maximum Recommended Continuous Service Temperature                            | N/A                               | °F                                  | 170 – 190                                 |
| Recommended Thermoforming Temperature   | N/A                               | °F                                  | 275 – 350                                 |
| <b>CRAZE RESISTANCE</b>   |                                   |                                     |   |
| Constant Stress Craze Resistance, IPA <sup>5</sup>                            | Modified ARTC Method – Mil P-6997 | psi                                 | 1,300                                     |
| Constant Stress Craze Resistance, Aromatic / Alcohol Blend <sup>5</sup>       | Modified ARTC Method – Mil P-6997 | psi                                 | 1,200                                     |
| <b>FLAMMABILITY<sup>3</sup> &amp; SPECIFICATION COMPLIANCE</b>                |                                   |                                     |   |
| Horizontal Burn Rate <sup>1,2</sup>   | ASTM D-635                        | in / min                            | 1.1                                       |
| Smoke Density   | ASTM D-2843                       | %                                   | 1.2                                       |
| Self Ignition Temperature   | ASTM D-1929                       | °F                                  | 860                                       |
| Surface Burning Characteristics – Flame Spread                                | CAN/ULC-S102.2-07<br>File R16788  | ---                                 | 100 (0.125" - 0.250")                     |
| Surface Burning Characteristics – Smoke Developed                             | CAN/ULC-S102.2-07<br>File R16788  | ---                                 | > 500 (0.125" - 0.250")                   |
| 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 (0.080" – 0.354")                     |
| American National Standard for Safety Glazing                                 | ANSI Z97.1                        | ---                                 | PASS (≥ 0.080")                           |
| FMVSS 205 – Federal Motor Vehicle Safety Glazing                              | ANSI Z26.1                        | ---                                 | AS-5, AS-6, AS-7                          |
| Standard Specification for PMMA Acrylic Plastic Sheet                         | ASTM D-4802                       | ---                                 | Category B-1, Finish 1                    |

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

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

2. Tests performed on 0.118" thickness.

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

4. Conditioned for 24 hours at 122°F

5. The values are after the material has been heated for forming.

For a complete listing of physical properties, go to [www.plexiglas.com](http://www.plexiglas.com) to download a copy of the Plexiglas® Acrylic Sheet General Information and Physical Properties brochure.

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.

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See MSDS for Health & Safety Considerations.  
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