# Physical Properties - GPA

AcryClear™ Acrylic Sheet GPA is a "general purpose" continuous cast acrylic sheet derived from a unique formulation which is easily fabricated and solvent cementable. The following physical properties were determined using 0.125 in. (3.17mm) thickness clear sheet. Properties may vary somewhat on other thicknesses and/or colors (translucent, transparent, or opaque).

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| **PROPERTY** | **TYPICAL VALUES** | **UNITS** | **TEST METHOD** |
| **General:**  Thickness  Specific Gravity | 0.125 (3.17)  1.19 | Inch (mm)  — | —  ASTM D-792 |
| **Optical (Unaged):**  Refractive Index  Light Transmission  Haze  Ultraviolet Light Transmission (250-370 nanometers) | 1.49  93.0  0.8  <1.0 | —  %  %  % | ASTMD-542  ASTMD-1003  ASTMD-1003  UV Spectrophotometer |
| **Optical (Aged):**  Light Transmission  Haze  Yellowness Index | 93.0  <2.0  +0.50 | %  %  YI | ASTMD-1003  ASTMD-1003  ASTME-313 |
| **Mechanical:**  Tensile Strength  Tensile Modulus  Tensile Elongation  Flexural Strength  Flexural Modulus  Notched Izod Impact  Charpy Impact (Un-notched)  Falling Dart Impact  Rockwell Hardness (M)  Barcol Hardness | 10,000 (68.9)  460,000 (3,171)  5.0  16,000 (110)  450,000 (3,102)  0.4 (2.1)  5.7 (29.9)  4.0 (5.4)  90-100  48-52 | psi (MPa)  psi (MPa)  %  psi (MPa)  psi (MPa)  ft-lb/in. of notch (kJ/m2) ft. -lb/in. (kJ/m2)  ft.-lbs. (J)  —  — | ASTM D-638  ASTM D-638  ASTM D-638  ASTM D-790  ASTM D-790  ASTM D-256 (Method A)  ASTM D-6110  FTMS 406-M-107 4 ASTMD-785  ASTMD-2583 |
| **Thermal:**  Hot Forming Temperature  DTUL @ 264 psi (1.82 MPa)  Thermal Conductivity  Specific Heat  Coefficient of Linear Thermal Expansion  Thermal Stability  30 min.@356° F (180°C) Flammability | 320-380 (160-193)  190 (88)  1.4 (20.2)  0.35(1465)  .000041 (.000074)  No degradation  94HB | °F (°C)  °F (°C)  Btu/(h·ft2-°F/in) (W/(m2·K/cm))  Btu/(lb·°F) (J/(kg·K))  in./in./°F (cm/cm/°C)  —  — | Aristech Method  ASTM D-648  Cinco-Fitch  ASTM C-351  ASTM D-696  ASTMD-48O2  UL Test# 94 |

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| **PROPERTY** | **TYPICAL VALUES** | **UNITS** | **TEST METHOD** |
| **Miscellaneous:**  Water Absorption  Odor  Taste | 0.35  None  None | %  —  — | ASTMD-570  —  — |

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| **Note: for cautions and information on exposure to any Aristech Surfaces’ product, please see the applicable material safety data sheet.** |

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