# 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:**ThicknessSpecific Gravity | 0.125 (3.17)1.19 | Inch (mm)— | —ASTM D-792 |
| **Optical (Unaged):**Refractive IndexLight TransmissionHazeUltraviolet Light Transmission (250-370 nanometers) | 1.4993.00.8<1.0 | —%%% | ASTMD-542ASTMD-1003ASTMD-1003UV Spectrophotometer |
| **Optical (Aged):**Light TransmissionHazeYellowness Index | 93.0<2.0+0.50 | %%YI | ASTMD-1003 ASTMD-1003 ASTME-313 |
| **Mechanical:**Tensile StrengthTensile ModulusTensile ElongationFlexural StrengthFlexural ModulusNotched Izod ImpactCharpy Impact (Un-notched)Falling Dart ImpactRockwell 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-638ASTM D-638ASTM D-638ASTM D-790ASTM D-790ASTM D-256 (Method A)ASTM D-6110 FTMS 406-M-107 4 ASTMD-785 ASTMD-2583 |
| **Thermal:**Hot Forming TemperatureDTUL @ 264 psi (1.82 MPa)Thermal ConductivitySpecific HeatCoefficient of LinearThermal ExpansionThermal Stability30 min.@356° F (180°C) Flammability | 320-380 (160-193)190 (88)1.4 (20.2)0.35(1465).000041 (.000074)No degradation94HB | °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 MethodASTM D-648Cinco-FitchASTM C-351ASTM D-696ASTMD-48O2UL Test# 94 |

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| **PROPERTY** | **TYPICAL VALUES** | **UNITS** | **TEST METHOD** |
| **Miscellaneous:**Water AbsorptionOdorTaste | 0.35NoneNone | %—— | 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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