# Physical Properties

Bulletin 185  
07/13/2021

Aristech Surfaces AcrySAN™ is a composite engineered material which has the exceptional surface properties, weathering characteristics and aesthetics of Aristech Surfaces Opaque Continuous Cast Acrylic and a substrate that imparts outstanding impact resistance and thermoformability.

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| **Property** | **Typical Values** | **Units** | **Test Method** |
| **General:**  Thickness  Specific Gravity | 0.160 (4.1)  1.085 | Inch (mm)  — | —  ASTM D-792 |
| **Mechanical:**  Tensile Strength  Tensile Modulus  Tensile Elongation  Flexural Strength  (Acrylic in Compression)  Flexural Modulus  (Acrylic in Compression)  Flexural Strength  (Acrylic in Tension)  Flexural Modulus  (Acrylic in Tension)  Notched Izod Impact  Falling Dart Impact  Barcol Hardness  Rockwell Hardness (M) | 6,600 (45.5)  370,000 (2,551)  4.4  9,100 (62.7)  340,000 (2,344)  10,800 (74.5)  326,000 (2,247)  2.1 (11.0)  12.3 (16.7)  54  67 | psi (MPa)  psi (MPa)  %  psi (MPa)  psi (MPa)  psi (MPa)  psi (MPa)  Ft.lbs./in.of notch (kJ/m2)  Ft.lbs. (J)  —  — | ASTM D-638  ASTM D-638  ASTM D-638  ASTM D-790  ASTM D-790  ASTM D-790  ASTM D-790  ASTM D-256(Method A)  FTMS 406 M-1074  ASTM D-2583  ASTM D-785 |
| **Thermal:**  Hot Forming Temperature  (Acrylic Side)  (ABS Side)  Coefficient of Thermal Expansion  DTUL @ 264 psi(1.82 MPa) | 350-380 (177-193)  300-340 (149-171)  0.000047 (.000085)  186.0 (85.6) | ˚F (˚C)   ˚F (˚C)  in./in./ ˚F (cm/cm/˚C)   ˚F (˚C) | Aristech Method  Aristech Method  ASTM D-696  ASTM D-648 |
| **Miscellaneous:**  Water Absorption  Gardner Gloss (60 Angle)  Odor  Taste | 0.19  87.4  None  None | %  —  —  — | ASTM D-570  ASTM D-523  —  — |

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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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