

# Physical Properties – AcrySan™ Plus I-300+

*Aristech Surfaces AcrySan™ Plus 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.*

Property	Typical Values	Units	Test Method
General:			
Thickness	0.275 (6.99)	Inch (mm)	—
Specific Gravity	1.10	—	ASTM D-792
Mechanical:			
Tensile Strength	6,500 (44.8)	psi (MPa)	ASTM D-638
Tensile Modulus	380,000 (2,620)	psi (MPa)	ASTM D-638
Tensile Elongation	5.0	%	ASTM D-638
Flexural Strength (Acrylic in Compression)	10,000 (68.9)	psi (MPa)	ASTM D-790
Flexural Modulus (Acrylic in Compression)	310,000 (2,137)	psi (MPa)	ASTM D-790
Flexural Strength (Acrylic in Tension)	10,800 (74.5)	psi (MPa)	ASTM D-790
Flexural Modulus (Acrylic in Tension)	314,000 (2,165)	psi (MPa)	ASTM D-790
Notched Izod Impact	2.4 (12.6)	Ft.lbs./in.of notch (kJ/m <sup>2</sup> )	ASTM D-256(Method A)
Falling Dart Impact	>30 (40.7)*	Ft.lbs. (J)	FTMS 406 M-1074
Barcol Hardness	52	—	ASTM D-2583
Rockwell Hardness (M)	97	—	ASTM D-785
Thermal:			
Hot Forming Temperature (Acrylic Side)	350-380 (177-193)	F (°C)	Aristech Method
(ABS Side)	300-340 (149-171)	F (°C)	Aristech Method
Coefficient of Thermal Expansion	0.000044 (.000079)	in./in./°F (cm/cm/°C)	ASTM D-696
DTUL @ 264 psi(1.82 MPa)			
Flammability	193.0 (89.4) 94HB	°F (°C) —	ASTM D-648 UL Test #94
Miscellaneous:			
Water Absorption	0.19	%	ASTM D-570
Odor	None	—	—
Taste	None	—	—
50 Cycles Freeze-Thaw -20°F(-29°C) to 180°F(82.2°C)	No Effect	—	Aristech Method

**\* Actual value higher — This is the limit of the test apparatus.**