

# Physical Properties – AcrySAN™ Plus

*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	0.350 (8.88)	Inch (mm)	—
Specific Gravity	1.10	—	ASTM D-792
Mechanical:			
Tensile Strength	6,100 (42.1)	psi (MPa)	ASTM D-638
Tensile Modulus	350,000 (2,413)	psi (MPa)	ASTM D-638
Tensile Elongation	6.2	%	ASTM D-638
Flexural Strength (Acrylic in Compression)	8,900 (61.4)	psi (MPa)	ASTM D-790
Flexural Modulus (Acrylic in Compression)	335,000 (2,310)	psi (MPa)	ASTM D-790
Flexural Strength (Acrylic in Tension)	10,700 (73.8)	psi (MPa)	ASTM D-790
Flexural Modulus (Acrylic in Tension)	323,000 (2,227)	psi (MPa)	ASTM D-790
Notched Izod Impact	3.2 (16.8)	Ft.lbs./in.of notch (kJ/m <sup>2</sup> )	ASTM D-256(Method A)
Falling Dart Impact	54 (73.2)*	Ft.lbs. (J)	FTMS 406-M-1074
Barcol Hardness	90-100	—	ASTM D-785
Rockwell Hardness (M)	48-52	—	ASTM D-2583
Thermal:			
Hot Forming Temperature (Acrylic Side)	350-380 (177-193)	°F (°C)	Aristech Method
(ABS Side)	300-340 (149-171)	°F (°C)	
Coefficient of Thermal Expansion	0.000043 (.000077)	in./in./°F (cm/cm/°C)	ASTM D-696
DTUL @ 264 psi(1.82 MPa)	193 (89.4)	°F (°C)	ASTM D-648
Flammability	94 HB	—	UL Test # 94
Miscellaneous:			
Water Absorption	0.20	%	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.*