

Physical Properties - AcrySpa™

Aristech Surfaces AcrySpa™ is a partially "cross-linked" commercial continuous cast acrylic sheet with unparalleled thermoforming properties. Aristech Surfaces AcrySpa™ was developed for plumbingware, spa, automotive and other applications.

PROPERTY	TYPICAL VALUES	UNITS	TEST METHOD
General			
Thickness	0.125 (3.17)	Inch (mm)	—
Specific Gravity	1.19	—	ASTM D-792
Optical (Unaged)			
Refractive Index	1.49	—	ASTM D-542
Light Transmission*	93.0*	%	ASTM D-1003
Haze	0.8	%	ASTM D-1003
Ultraviolet Light Transmission (250-370 nanometers)	<1.0	%	UV Spectrophotometer
Optical (Aged):			
Light Transmission*	93.0*	%	ASTM D-1003
Haze	1.0	%	ASTM D-1003
Yellowness Index	+ 0.45	YI	ASTM E-313
Mechanical			
Tensile Strength	10,000 (68.9)	psi (MPa)	ASTM D-638
Tensile Modulus	460,000 (3,171)	psi (MPa)	ASTM D-638
Tensile Elongation	5.5	%	ASTM D-638
Flexural Strength	15,500 (106)	psi (MPa)	ASTM D-790
Flexural Modulus	450,000 (3,102)	psi (MPa)	ASTM D-790
Notched Izod Impact	0.4 (2.1)	ft.-lb./in. of notch (kJ/mÇ)	ASTM D-256 (Method A)
Charpy Impact (Un-notched)	4.6 (24.2)	ft.-lb./in. (kJ/mÇ)	ASTM D-6110
Falling Dart Impact	3.0 (4.1)	ft.-lbs. (J)	FTMS 406-M-1074
Rockwell Hardness (M)	90-100	—	ASTM D-785
Barcol Hardness	48-52	—	ASTM D-2583
Thermal			
Hot Forming Temperature	340-380 (171-193)	°F (°C)	Aristech Method
DTUL @ 264 psi (1.82 MPa)	190 (88)	°F (°C)	ASTM D-648
Thermal Conductivity	1.4 (20.2)	Btu/(h·ftÇ·°F/in) (W/(mÇ·K/cm))	Cinco-Fitch
Specific Heat	0.35 (1465)	Btu/(lb·°F) (J/(kg·K))	ASTM C-351
Coefficient of Linear Thermal	0.000041 (.000074)	in./in./°F (cm/cm/°C)	ASTM D-696
Expansion			

PROPERTY	TYPICAL VALUES	UNITS	TEST METHOD
Thermal Stability	No degradation	—	ASTM D-4802
30 min.@ 356°F(180°C)			
Flammability	94 HB	—	UL Test # 94
Miscellaneous:			
Water Absorption	0.33	%	ASTM D-570
Odor	None	—	—
Taste	None	—	—

* Light transmission value based on testing of clear 0.125" thickness sheet

For cautions and other information relating to handling of an exposure to this product, please see the applicable material safety data sheet published by Aristech Surfaces.

These instructions are based upon experience with Aristech Surfaces products only. Experience with products of other manufacturers is specifically disclaimed. For most uses, check for local code approval and test for application suitability. These procedures, techniques and suggested materials should only be used by personnel who are properly trained in the safe handling of the chemicals and the equipment with which they are working. Avoid aromatic solvents, clean with mild soap and water, avoid abrasives. These suggestions are based on information believed to be reliable, however, Aristech Surfaces makes no warranty, guarantee, or representation and assumes no obligations or liability as to the absolute correctness or sufficiency of any of the foregoing, or that additional or other measures may not be required under particular conditions or circumstances.

