



PHYSICAL PROPERTIES AVONITE® ACRYLIC SOLID SURFACING SHEETS 12MM

Aristech Surfaces' Avonite Acrylic Solid Surface "Specialty Blend Solid Surface" sheet products in a variety of attractive colors provide exceptionally weatherable, strong, non-porous, scratch and stain resistant material for architectural designs and utilitarian surfaces.

PROPERTY	UNITS	SOLIDS	SMALL PARTICULATE	MEDIUM PARTICULATE	LARGE PARTICULATE	TEST METHOD
General						
Nominal Thickness	mm	12mm	12mm	12mm	12mm	-
Density	g/cm ³	1.73	1.60	1.62	1.63	ASTM D 792
Water Absorption	%	0.04	0.05	0.05	0.05	ASTM D 570
Mechanical						
Tensile Strength	psi	4,500	4,500	4,100	3,650	ASTM D 638
Tensile Modulus	psi	1,525,000	1,036,000	1,220,000	1,190,000	ASTM D 638
Tensile Elongation	%	0.40	1.00	0.55	0.45	ASTM D 638
Flexural Strength	psi	9,300	8,000	7,150	6,850	ASTM D 790
Flexural Modulus	psi	1,260,000	1,063,000	1,050,000	1,170,000	ASTM D 790
Barcol Hardness	-	63	58	59	60	ASTM D 2583
Rockwell Hardness (M Scale)	-	94	94	93	93	ASTM D 785
Charpy Impact	ft-lbs/inch	1.10	1.10	0.85	0.80	ASTM D 6110
Ball Impact (½ lb. ball, no failure)	Inches	>150	120	114	84	NEMA LD3-3.8
Thermal						
DTUL @ 264 psi	°F	215	200	200	198	ASTM D 648
Coefficient of Thermal Expansion	in/in/°F	2.09x10 ⁻⁵	2.46x10 ⁻⁵	2.46x10 ⁻⁵	2.46x10 ⁻⁵	ASTM D 696
Boiling Water Resistance	-	No Effect	No Effect	No Effect	No Effect	ISFA 2-01
High Temperature Resistance	-	No Effect	No Effect	No Effect	No Effect	ISFA 2-01
Reaction to Fire	-	Class A	Class A	Class A	Class A	ASTM E 84
Combustion Toxicity	-	98	67	67	67	Pittsburgh Protocol
Total Volatile Organic Compounds	µg/m ² /hr	69.1	69.1	69.1	69.1	ASTM D 5116
Surface						



PROPERTY	UNITS	SOLIDS	SMALL PARTICULATE	MEDIUM PARTICULATE	LARGE PARTICULATE	TEST METHOD
Consistency of Color (Same Sheet)	-	Passes	Passes	Passes	Passes	ISFA 2-01
Light Resistance	-	No Effect	No Effect	No Effect	No Effect	ISFA 2-01
Cleanability/Stain Resistance	-	Passes	Passes	Passes	Passes	NEMA LD3-3.4
Stain Resistance	-	Passes	Passes	Passes	Passes	ANZI/ICPA SS-1
Bacterial Resistance	-	No growth	No growth	No growth	No growth	ASTM G 22
Fungi Resistance	-	No growth	No growth	No growth	No growth	ASTM G 21
Food Zone Use	-	Approved	Approved	Approved	Approved	NSF 51

Note: for cautions and information on exposure to any Aristech Surfaces' product, please see the applicable material safety data sheet.

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