

## Physical Properties - Avonite® Acrylic Solid Surfacing Sheets 9mm

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
<b>General</b>						
Nominal Thickness*	mm	9mm	9mm	9mm	9mm	-
Density	g/cm <sup>3</sup>	1.73	1.60	1.62	1.63	ASTM D 792
Water Absorption	%	0.04	0.05	0.05	0.05	ASTM D 570
<b>Mechanical</b>						
Tensile Strength	MPa	31.1	31.1	28.3	25.2	ASTM D 638
Tensile Modulus	MPa	10,514	7,142	8,411	8,204	ASTM D 638
Tensile Elongation	%	0.40	1.00	0.55	0.45	ASTM D 638
Flexural Strength	MPa	64.1	55.2	49.3	47.2	ASTM D 790
Flexural Modulus	MPa	8,687	7,329	7,240	8,067	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	J/m	58.7	58.7	45.3	42.7	ASTM D 6110
Ball Impact (227g ball, no failure)	cm	305	305	275	215	NEMA LD3-3.8
<b>Thermal</b>						
DTUL @ 1.82 Mpa	°C	102	93	93	92	ASTM D 648
Coefficient of Thermal Expansion	cm/cm/°C	3.76x10 <sup>-5</sup>	4.43x10 <sup>-5</sup>	4.43x10 <sup>-5</sup>	4.43x10 <sup>-5</sup>	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 B	Class B	Class B	ASTM E 84
Combustion Toxicity	-	98	67	67	67	Pittsburgh Protocol
Total volatile Organic Compounds	µg/m <sup>2</sup> /hr	69.1	69.1	69.1	69.1	ASTM D 5116

PROPERTY	UNITS	SOLIDS	SMALL PARTICULATE	MEDIUM PARTICULATE	LARGE PARTICULATE	TEST METHOD
<b>Surface</b>						
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

*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*

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