



TECHNICAL BULLETIN #205M

Physical Properties - Avonite® Acrylic Solid Surfacing Sheets 3mm

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	PARTICULATES	TEST METHOD
General				
Nominal Thickness*	mm	3mm	3mm	-
Density	g/cm ³	1.73	1.60	ASTM D 792
Water Absorption	%	0.13	0.08	ASTM D 570
Mechanical				
Tensile Strength	MPa	33.4	27.6	ASTM D 638
Tensile Modulus	MPa	7,010	7,650	ASTM D 638
Tensile Elongation	%	1.40	1.50	ASTM D 638
Flexural Strength	MPa	71.0	55.2	ASTM D 790
Flexural Modulus	MPa	6,070	6,720	ASTM D 790
Barcol Hardness	-	59	57	ASTM D 2583
Rockwell Hardness (M Scale)	-	86	94	ASTM D 785
Charpy Impact	J/m	104.0	48.0	ASTM D 6110
Ball Impact (227g ball, no failure) Supported	cm	>380	>380	NEMA LD3-3.8
Ball Impact (227g ball, no failure) Unsupported	cm	213	152	NEMA LD3-3.8
Thermal				
DTUL @ 1.82 Mpa	°C	88	93	ASTM D 648
Coefficient of Thermal Expansion	cm/cm/°C		4.43x10 ⁻⁵	ASTM D 696
Boiling Water Resistance	-	No Effect	No Effect	ISFA 2-01
High Temperature Resistance	-	No Effect	No Effect	ISFA 2-01
Reaction to Fire	-	Class B	Class B	ASTM E 84
Combustion Toxicity	-	98	67	Pittsburgh Protocol
Total volatile Organic Compounds	µg/m ² /hr	69.1	69.1	ASTM D 5116

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

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

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