

WS Hampshire
Over 100 Years of Non-Metallic Material Fabrication

[Arboron® Material Specifications](#)

Table A: General Specifications

Specifications	
Density	86.4 lbs/ft ³ (1,384 Kg/m ³)
Tensile Strength (Machine Direction)	22,000 PSI (151,865 kPa)
Tensile Strength (Cross Direction)	16,000 PSI (110,316 kPa)
Flexural Strength (Machine Direction)	23,000 PSI (158,579 kPa)
Flexural Strength (Cross Direction)	15,000 PSI (103,421 kPa)
Compressive Strength (Flatwise)	22,700 PSI (156,511 kPa)
Compressive Strength (Edgewise)	43,600 PSI (300,611 kPa)
Elastic Modulus (Machine Direction)	2,370,000 PSI (16,300,000 kPa)
Elastic Modulus (Cross Direction)	1,780,000 PSI (12,300,000 kPa)
Impact Strength (Machine Direction)	.6 ft lbs/in
Impact Strength (Cross Direction)	.5 ft lbs/in
Bond Strength	659 PSI
Rockwell Hardness (M Scale)	106
Water Absorption (1/8", 1/2")	.9%, .5%
Relative Thermal Index	95°C
U.L. 94 Flame Class. (Flame, Smoke)	<20, <70
Arc Resistance	135 seconds
Dissipation Factor (1/4")	.0481
Dielectric Constant (1/4")	5.41

Table B: Chemical Reagent Exposure Effects (Laboratory Grade Arborite)

Acids	No Effect	Slight Color Change*	Slight Damage**
Acetic Acid	X		
Aqua Regia			X
Chromic Trioxide		X	
Formic Acid		X	
Glacial Acetic Acid	X		
Hydrochloric Acid	X		
Hydrofluoric Acid		X	
Nitric Acid			X
Perchloric Acid	X		
Phosphoric Acid	X		
Picric Acid 1.2%	X		
Sulfuric Acid			X
Tannic Acid	X		
Uric Acid	X		

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Solvents	No Effect	Slight Color Change*	Slight Damage**
Acetone	X		
Amyl Acetate	X		
Amyl Alcohol	X		
Butyl Alcohol	X		
Carbon Disulfide	X		
Carbon Tetrachloride	X		
Chlorobenzene	X		
Chloroform	X		
Cresol	X		
Dimethyl Formamide	X		
Dioxane	X		
EDTA	X		
Ethyl Acetate	X		
Ethyl Alcohol	X		
Formaldehyde	X		
Methanol	X		
Methyl Ethyl Ketone	X		
Methylene Chloride	X		
Naphthalene	X		
N-Hexane	X		
Phenol		X	
Tetrahydrofuran	X		
Toluene	X		
Trichloroethane	X		
Xylene	X		

Bases	No Effect	Slight Color Change*	Slight Damage**
Ammonium Hydroxide	X		
Sodium Hydroxide			X
Sodium Sulfide	X		

*A slight change to color or gloss existed (exposure time of 16 hours)

**Slight damage occurred (exposure time of 16 hours), amount of damage proportional to length of exposure and concentration.

Arboron is a product of Arborite™