

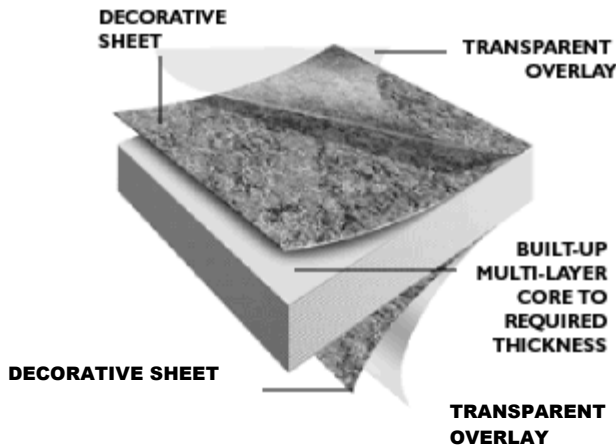
**Manufacturer**

Arborite  
385 Lafleur, Lasalle (Québec), H8R 3H7  
Web site : [www.arborite.com](http://www.arborite.com) - Phone: 1-800-996-0366  
Alternate manufacturing facility – Fletcher, NC

**Product Description**

Compact Grade laminate is a high pressure solid composite designed for laboratory work surfaces, toilet partitions, wall panels, fume hood decks, fume hood liner panels, pegboards (drying racks), reagent racks, commercial countertops, cabinet drawer fronts, locker drawers, shelving, window sills and decorative casework components.

Compact Grade laminates provide exceptional chemical and stain resistance combined with superior impact resistance and physical characteristics.



Three categories of Compact Grade Laminates include:

- 1) **Arborite Compact Laminate** – represent a category of thick, self-supporting homogeneous panels finished with melamine surfaces on both sides. Can be used for laboratory applications and casework where less harmful acids and other chemical products are used.
- 2) **Arborite Fire Rated Compact Laminate** – represent a category of thick panels with fire retardant properties that are suitable for applications where fire rated properties are required by building codes, i.e., elevator cabs, stairwells, public areas, and hospitals. This laminate is also suitable for all segments within the transportation industry.
- 3) **Arborite ArboChem Compact Laminate** - represent a category of thick, self-supporting homogeneous panels finished with melamine surfaces on both sides. They are engineered to resist a variety of acids, solvents, general reagents and cleaning agents.

### **Arborite Compact Laminate Thickness\***

<b>Product Type</b>	<b>Imperial Measure (in.)</b>	<b>Metric Measure (mm)</b>	<b>Thickness Tolerance</b>	<b>Lbs/ Sq.Ft</b>	<b>Description</b>
S013 (1/8")	0.125"	3.2 mm	±0.012"	0.90	Double Faced
S025 (1/4")	0.250"	6.4 mm	± 0.0125"	1.80	Double Faced
**S031 (5/16")	0.312"	7.9 mm	± 0.0156"	2.25	Double Faced
**S038 (3/8")	0.375"	9.5 mm	± 0.0187"	2.70	Double Faced
S050 (1/2")	0.500"	12.7 mm	± 0.025"	3.60	Double Faced
S075 (3/4")	0.750"	19.0 mm	± 0.037"	5.40	Double Faced
S100 (1")	1.00"	25.4 mm	± 0.050"	7.20	Double Faced

\* Thickness tolerance according to NEMA LD 3-2005 for Compact Laminate grade (CGS)

\*\* Available with a 20 sheet minimum order or a 25% up-charge will apply.

### **Standard Panel Sizes for Arborite Compact Laminates**

<b>Imperial Measure (feet)</b>	<b>Metric measure (mm)</b>
4' x 8'	1220 mm x 2440 mm
** 4' x 10'	1220 mm x 3050 mm
** 5' x 8'	1525 mm x 2440 mm
5' x 10'	1525 mm x 3050 mm
5' x 12'	1525 mm x 3660 mm

\*\* 4' x 10' and 5' x 8' available with a minimum of 20 sheets per size and thickness, or a 25% up-charge will apply.

### **Arborite Compact Surface Texture**

<b>Texture</b>	<b>Surface Gloss Level</b>
Cashmere (CA) Finish – a fine, matte texture with a slight sheen	8-12

### **Arborite Compact Color Availability**

All Arborite standard color collection is available in compact laminates.

### **Arborite Fire Rated Compact Laminate Thickness\***

<b>Product Type</b>	<b>Imperial Measure (In.)</b>	<b>Metric Measure (Mm)</b>	<b>Thickness Tolerance</b>	<b>Lbs/ Sq.Ft</b>	<b>Description</b>
SF25 (1/4")	0.250"	6.4 mm	± 0.0125"	1.8	Double Faced
SF50 (1/2")	0.500"	12.7 mm	± 0.025"	3.6	Double Faced
SF75 (3/4")	0.750"	19.0 mm	± 0.037"	5.4	Double Faced
F100 (1")	1.00"	25.4 mm	± 0.050"	7.2	Double Faced

\* thickness tolerance according to NEMA LD 3-2005 for Compact Laminate grade (CGS)

### **Standard Panel Sizes for Fire Rated Compact Laminates**

<b>Imperial Measure (feet)</b>	<b>Metric measure (mm)</b>
4' x 8'	1220 mm x 2440 mm
5' x 10'	1525 mm x 3050 mm
5' x 12'	1525 mm x 3660 mm

### **Arborite Fire Rated Compact Laminate Texture Availability**

<b>Texture</b>	<b>Surface Gloss Level</b>
Cashmere (CA) Finish – a fine, matte texture with a slight sheen	8-12

### **Arborite Fire Rated Compact Laminate Color Availability**

All Arborite standard color collection is available in fire rated compact laminates.

### **Certifications – Fire Rated Compact Laminate (1/4" – 1")**

Underwriters Laboratories	Class 1	
UL &23 (ASTM E84)* - Performance Properties:	Flame Spread Smoke Developed:	25 200

\*\*"Test for Surface Burning Characteristics of Building Materials"

**ArboChem Compact Laminate Thickness\***

Product Type	Imperial Measure (In.)	Metric Measure (Mm)	Thickness Tolerance	Lbs/ Sq.Ft	Description
SO13 (1/8")	0.125"	3.2 mm	± 0.008"	0.9	Double Faced
SO25 (1/4")	0.250"	6.4 mm	± 0.012"	1.8	Double Faced
SO50 (1/2")	0.500"	12.7 mm	± 0.021"	3.6	Double Faced
SO75 (3/4")	0.750"	19.0 mm	± 0.027"	5.4	Double Faced
S100 (1")	1.00"	25.4 mm	± 0.033"	7.2	Double Faced

\* Thickness tolerance according to NEMA LD3-2005 for Compact Laminate grade (CGS)

**ArboChem Compact Laminates Standard Panel Sizes**

Imperial Measure (feet)	Metric measure (mm)
4' x 8'	1220 mm x 2440 mm
5' x 10'	1525 mm x 3050 mm
5' x 12'	1525 mm x 3660 mm

**ArboChem Compact Laminates Texture Availability**

Texture	Surface Gloss Level
Matte (MA) Finish –a fine beaded texture with a slight sheen	14-18

**ArboChem Compact Laminates Color Availability**

P500	P885	P886	P999	S405	S406	S407	S431	S463	S466
S486	S513	S548	S550	W403	W405				

**NEMA Performance Properties of Compact Grade Laminates (CGS) - meets or exceeds these values**

ASTM TEST METHOD	NOMINAL THICKNESS	UNITS: MM / INCHES	COMPACT LAMINATE	
			>6.0 mm (>0.236")	2.0-6.0 mm (0.079" -0.236")
D 790	Flexural Strength	MPa (psi) MD Min.	$1.24 \times 10^2$ (18000)	$1.24 \times 10^2$ (18000)
		MPa (psi) CD Min.	$8.27 \times 10^1$ (12000)	$8.27 \times 10^1$ (12000)
D 790	Flexural Modulus (Modulus of Elasticity)	MPa (psi) MD Min.	$1.10 \times 10^4$ ( $1.6 \times 10^6$ )	$1.10 \times 10^4$ ( $1.6 \times 10^6$ )
		MPa (psi) CD Min.	$9.65 \times 10^3$ ( $1.4 \times 10^6$ )	$9.65 \times 10^3$ ( $1.4 \times 10^6$ )
D 638	Tensile Strength	MPa (psi) MD Min.	$1.24 \times 10^2$ (18000)	$1.24 \times 10^2$ (18000)
		MPa (psi) CD Min.	$8.27 \times 10^1$ (12000)	$8.27 \times 10^1$ (12000)

PROPERTY	GRADE** UNITS	COMPACT LAMINATE	
		>6.0 mm ( $\pm 5\%$ of thickness) >0.236" ( $\pm 5\%$ of thickness)	2.0-6.0 mm ( $\pm 0.30$ mm) 0.125" - 0.236" ( $\pm 0.012$ " )
Light Resistance	Rating, * Min.	SL	SL
Cleanability	Rating, * Max.	20	20
Stain 1-10 Stain 11-15	Rating, * Min.	NE M	NE M
Boiling water resistance	Rating, * Min.	NE	NE
High Temperature Resistance	Rating, * Min.	SL	SL
Ball Impact Resistance	mm (in.) Min.	1900 (75)	1900 (75)
Radiant Heat Resistance	Sec., Min.	200	200
Dimensional Change	% MD, Max	0.3	0.3
	% CD, Max	0.7	0.7
Room Temperature Dimensional Stability	% MD, Max	0.3	0.3
	% CD, Max	0.7	0.7
Wear Resistance	Cycles, Min.	400	400

\* Rating system: NE – no effect, SL – slight effect, M – moderate effect, S – Severe Effect

\*\* Grade designations are not acronyms

## Arborite Compact Laminate - Chemical Reagent Staining Effects

Acetic Acid (all concentrations)	SL/E
Acetone	SL/E
Ag Eosin Bluish 5% in Alcohol	NE
Alconox	NE
Aluminon	NE
Ammonium Hydroxide (all concentrations)	NE
Ammonium Phosphate	NE
Amyl Acetate	SL/E
Amyl Alcohol	SL/E
Aqua Regia	SE
Aromatic Ammonia	NE
Benedict's Solution	NE
Bromothymol Blue	NE
Butyl Alcohol	SL/E
Calcium Hypochlorite (concentrated)	NE
Camphorated para-chlorophenol	NE
Carbon Disulfide	SL/E
Carbon Tetrachloride	SL/E
Cellosolve	NE
Chlorobenzene	SL/E
Chloroform	NE
Chromic Trioxide	SE
Copper Sulfate	NE
Cresol	NE
Cresol Red	NE
Crystal Violet	ME
Dimethyl Formamide	NE
Dioxane	SL/E
EDTA	NE
Ethyl Acetate	SL/E
Ethyl Alcohol	NE
Ethylene Glycol	NE
Eucalyptol	NE
Formaldehyde	SL/E
Formalin	SL/E
Formic Acid (all concentrations)	ME
Gasoline	NE
Gentian Violet	ME
Glacial Acetic Acid, 99% (concentrated)	SL/E
Gram Stains	NE
Hydrofluoric Acid 48% (concentrated)	ME
Hydrochloric Acid (all concentrations)	SE
Hydrogen Peroxide 3%	NE
Iodine	NE
Karl Fischer Reagent	NE
Kerosene	NE
Lactated Ringers Solution	NE
Lysol™	NE
Malachite Green	NE
Methanol	SL/E
Methylene Blue	ME
Methylene Chloride	NE
Methyl Ethyl Ketone	NE

Methyl Methacrylate	NE
Methyl Orange	NE
Methyl Red	NE
Mineral Oil	NE
Monseil's Solution	NE
Naphtha	NE
NaphtHalene	NE
n-Hexane	NE
Nigrosine	NE
Nitric Acid (all concentrations)	SE
Perchloric Acid (concentrated)	SE
Petroleum Jelly	NE
Phenol (all concentrations)	NE
Phenolphthalein	NE
Phosphate Buffered Saline	NE
Phosphoric Acid (all concentrations)	ME
Picric Acid 1.2% (0.05M)	SE
Pine Oil	NE
Potassium Permanganate	ME
Povidone Iodine	NE
Procaine	NE
Quaternary Ammonia Compounds	NE
Safranin O	NE
Silver Nitrate	ME
Sodium Azide	NE
Sodium Chromate	NE
Sodium Hydroxide (all concentrations)	ME
Sodium Hypochlorite 5%	SE
Sodium Sulfide 15%	NE
Sulfuric Acid (all concentrations)	SE
Sodium Thiocyanate	NE
Sucrose 50%	NE
Sudan III	NE
Tannic Acid (sat.)	SL/E
Tetrahydrofuran	NE
Thymol & Alcohol	NE
Thymol Blue	NE
Tincture of Iodine	NE
Tincture of Mercurochrome	NE
Tincture of Merthiolate	NE
Toluene	NE
Trichlorethane	SL/E
Trisodium Phosphate 30%	NE
Urea	NE
Uric Acid (sat.)	SL/E
Vegetable Oils	NE
Water	NE
Wright's Blood Stain	ME
Xylene	NE
Zephiran Chloride	NE
Zinc Chloride	NE
Zinc Oxide Ointment	NE

### EXPLANATION OF TEST RESULTS:

NE: No Effect  
 SL/E: Slight Effect  
 ME: Moderate Effect  
 SE: Severe Effect

*Results may vary slightly by color. Request a sample for evaluation and chemical resistance testing. It is recommended that chemical spills be cleaned immediately to prevent or greatly reduce the effects caused by longer exposure*

## Arborite ArboChem Laminate - Chemical Reagent Staining Effect

### Acids:

1. Acetic Acid (all concentrations)
2. Aqua Regia
3. Chromic Trioxide (Chromic Acid Cleaning Solution) \*
4. Formic Acid (all concentrations)
5. Glacial Acetic Acid 99% (concentrated)
6. Hydrofluoric Acid 48% (concentrated)\*
7. Hydrochloric Acid (all concentrations)
8. Nitric Acid (all concentrations)\*\*
9. Perchloric Acid (concentrated)
10. Phosphoric Acid (all concentrations)
11. Picric Acid 1.2% (0.05M)
12. Sulfuric Acid (all concentrations)\*\*
13. Tannic Acid (sat.)
14. Uric Acid (sat.)

### Solvents:

15. Acetone
16. Amyl Acetate
17. Amyl Alcohol
18. Butyl Alcohol
19. Carbon Disulfide
20. 15. Carbon Tetrachloride
21. Chlorobenzene
22. Chloroform
23. Cresol
24. Dimethylformamide
25. Dioxane
26. EDTA
27. Ethyl Acetate
28. Ethyl Alcohol
29. Formaldehyde
30. Methanol
31. Methylene Chloride

32. Methyl Ethyl Ketone
33. Naphthalene
34. n-Hexane
35. Phenol (all concentrations)\*
36. Tetrahydrofura
37. Toluene
38. Trichloroethane
39. Xylene

### Bases:

40. Ammonium Hydroxide (all concentrations)
41. Sodium Hydroxide (all concentrations)\*\*
42. Sodium Sulfide 15%

### General Reagents:

43. Alconox (Lab. Detergent)
44. Aluminon
45. Ammonium Phosphate
46. Aromatic Ammonia
47. Benedicts Solution
48. Calcium Hypochlorite (concentrated)
49. Camphorated para-chlorophenol\*
50. Cellosolve
51. Copper Sulfate
52. Ethylene Glycol
53. Eucalyptol
54. Formalin
55. Gasoline
56. Hydrogen Peroxide 3%
57. Iodine
58. Karl Fisher Reagent
59. Kerosene
60. Lactated Ringers
61. Lyso<sup>TM</sup>
62. Methyl Methacrylate
63. Mineral Oil
64. Monsel's Solution (Ferric Subsulfate)
65. Naphtha
66. Petroleum Jelly

67. Phosphate Buffered Saline (PBS)
68. Pine Oil
69. Potassium Permanganate
70. Povidone Iodine
71. Procaine
72. Quaternary Ammonia Compounds
73. Silver Nitrate
74. Sucrose 50%
75. Sodium Azide
76. Sodium Chromate
77. Sodium Hypochlorite 5%
78. Sodium Thiocyanate
79. Thymol & Alcohol
80. Tincture of Mercurochrome
81. Tincture of Iodine
82. Tincture of Merthiolate
83. Trisodium Phosphate 30%
84. Urea
85. Vegetable Oils
86. Water
87. Zephiran Chloride
88. Zinc Chloride
89. Zinc Oxide Ointment

### Stains and Indicators:

90. Ag Eosin Bluish 5% in Alcohol
91. Bromothymol Blue
92. Cresol Red
93. Crystal Violet
94. Gentian Violet 1%
95. Gram Stains
96. Malachite Green
97. Methyl Orange
98. Methyl Red
99. Methylene Blue
100. Nigrosine
101. Phenolphthalein
102. Safranin O
103. Sudan III
104. Thymol Blue
105. Wright's Blood Stain

\* Causes slight change of gloss or color.

\*\*Causes slight damage, with degree of damage proportionate to length of exposure and concentration.

Other items leave no effect

*Test procedure: Listed materials were placed in contact with Arborite ArboChem surface under 1" (25.4mm) diameter watch cover glass for 16 hours duration prior to evaluation for effect. The effects of staining are color and pattern dependent. Request a sample for evaluation and chemical resistance testing*

## **Limitations**

Arborite Compact Laminates, Arborite ArboChem Compact laminates, and Arborite Fire Rated Compact laminates offer special protection for many work surfaces. These product types are designed for interior applications. However, no one material is suitable for all possible conditions; its properties should be checked for suitability under the specific conditions of each installation. The information provided herein is not intended for or to guarantee specific properties.

## **Standards & Approvals**

Arborite laminates meet or exceed standard tests set by:

- The National Electrical Manufacturers Association “ANSI/NEMA LD3-2005”, for high pressure decorative laminates.

The purpose of this Standards Publication is to provide standard test methods and performance values for high-pressure decorative laminates.

- The GREENGUARD Environmental Institute™ has awarded its GREENGUARD Indoor Air Quality Certification to Arborite. All Arborite laminate product types were tested under the stringent GREENGUARD Standards for low-emitting products. All GREENGUARD Indoor Air Quality Certified® products ensure minimal impact on the indoor environment. For a copy of the certificate, visit [www.greenguard.org](http://www.greenguard.org).
- Arborite is certified ISO 9001:2008 Quality Management System.
- Arborite is a member of the USGBC (US Green Building Council).
- Arborite is a member of the CaGBC (Canada Green Building Council).

## **Building Codes**

Arborite laminates meet the general requirements for the Canadian and US building codes.

## **Antimicrobial Activity and Efficacy**

Arborite decorative laminates have a non porous surface that does not promote bacterial growth. Tested under method JIS Z2801:2000 (E) for antimicrobial activity and efficacy, our laminate surface exhibited strong biocidal properties, with a reduction of 99.99% of the tested bacteria (S.aureus).

## **FSC® Certification**

Arborite products are available as FSC® Mix Credit (please contact our customer service department for availability).

FSC® trademark license code: FSC-C102327

## **Core Color**

Arborite Compact Laminates, Arborite ArboChem Compact laminates, and Arborite Fire Rated Compact laminates are produced with a black core as the standard offering in ¼” to 1” thicknesses.



## **Fabrication**

Arborite Compact decorative laminate can be cut, drilled and machined by standard wood-working equipment fitted with carbide cutting edges. Rough cuts can be made with carbide tip blades typically 62 tooth or greater on a table saw or Kane saw.

To achieve a clean edge, routers with ¼" or ½" shaft, with 2 flute carbide blades can be used to remove rough edges. CNC routers typically will run at 10,000 to 18,000 RPM's at 150 to 900 inches per minute. (dependent on thickness of panel and type of cut). It is common to run 10,000 RPM's at 200 inches per minute on ½" and ¾" material.

Final edge sanding can be achieved with an orbital sander.

<b>Matt Finish</b>	<b>Satin</b>	<b>Simi gloss</b>
100u	100u	100u
80u	80u	80u
60u	60u	60u
	1000 Mirka Abralon	1000 Mirka Abralon
		2000 Mirka Abralon

## **Installation**

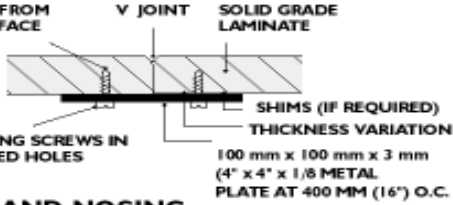
Generally, the principles applicable to the installation of decorative laminate work will also apply to the installation of Arborite Compact laminate.

Surface mounted objects should be secured into the face or back of the laminate using self-tapping screws in pre-drilled holes. **IMPORTANT NOTE: Do not screw into the edges of Compact Grade laminate.**

Leveling at joints should be done using shims on the underside if necessary. Do not use splines in the edges. Metal brackets or retaining clips are recommended for securing the laminate panels together, and to abutting surfaces. To secure counters to cabinets and provide liquid proof butt joints, a two part epoxy, two part urethane or silicone sealant can be used. The following detailed drawings indicate the basic principles for installing Arborite Compact decorative laminate.

## JOINTS

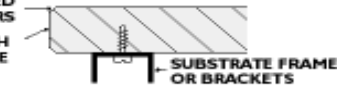
KEEP SCREWS  
3 mm (1/8") FROM  
LAMINATE FACE



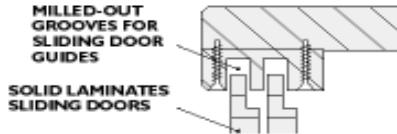
SELF TAPPING SCREWS IN  
PRE-DRILLED HOLES

## EDGES AND NOSING

CHAMFERED  
CORNERS  
SMOOTH  
EDGE

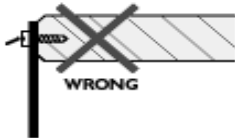


Standard edges



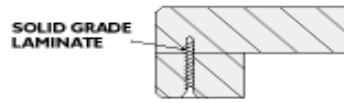
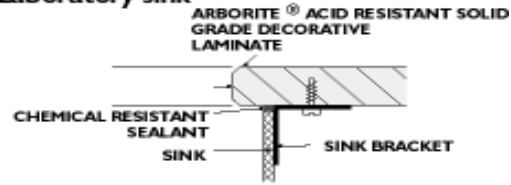
Edges with sliding doors

DO NOT FASTEN  
INTO EDGE OF SOLID  
GRADE LAMINATE

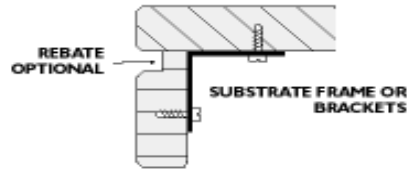


Improper edge fastening

## Laboratory sink

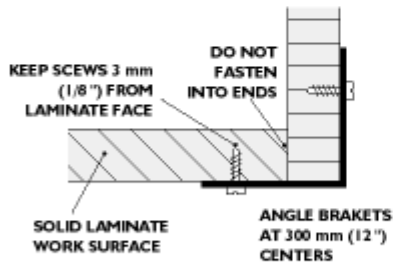
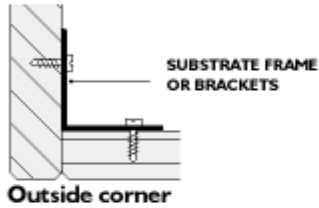
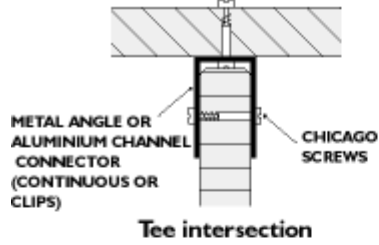


Built-up edges

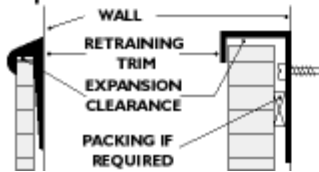


Edges with arpon

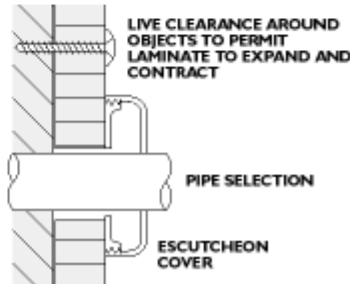
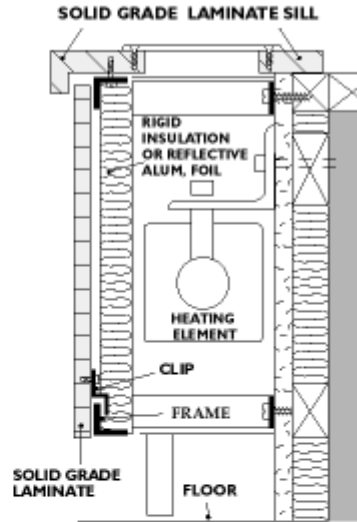
**INTERSECTIONS**



**Backsplashes**



**HEATING ENCLOSURE, WINDOW SILL**



**Pass-thru object**

## **Care and Maintenance**

To clean Arborite laminate surfaces, simply wipe with a soft damp cloth and mild detergent; then rinse thoroughly with warm water and wipe dry. For stubborn stains, use an all-purpose cleaner, with a damp cloth; then rinse thoroughly with warm water and wipe dry.

For really tough stains, create a paste composed of baking soda and water. Using a soft brush, scrub gently in a circular motion – 10 to 20 strokes should remove most stains; then rinse thoroughly with warm water and wipe dry. Keep in mind that excessive scrubbing can dull or damage the finish. For additional care and maintenance tips, please visit our web site at <http://www.arborite.com/us/HPL-Technical-Information>, HPL Care & Maintenance.

## **Warranty**

Arborite, division of Wilsonart Canada ULC, warrants that, under normal use and service, the material and workmanship of its products shall conform to the standards set forth on the applicable technical data sheets for a period of twelve (12) months from the date of sale to the first consumer purchaser. Dealers and distributors are provided with the technical data sheets which contain specific standards of performance for the products. In the event that an Arborite product does not perform as warranted, the first purchaser's sole remedy shall be limited to repair or replacement of all or any part of the product which is defective, at the manufacturer's sole discretion.

This warranty applies only to product :

1. In its original installation; and
2. Purchased by the first consumer purchaser.

This warranty is not transferable, and expires upon resale or transfer by the first consumer purchaser.

This warranty shall not apply to defects or damage arising from any of the following :

1. Accidents, abuse or misuse;
2. Exposure to extreme temperature;
3. Improper fabrication or installation; or
4. Improper maintenance.

**NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE. UNDER NO CIRCUMSTANCES SHALL THE MANUFACTURER BE LIABLE FOR ANY LOSS OR DAMAGE ARISING FROM THE PURCHASE, USE OR INABILITY TO USE THIS PRODUCT, OR FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. NO FABRICATOR, INSTALLER, DEALER, AGENT OR EMPLOYEE OF ARBORITE, A DIVISION OF WILSONART CANADA ULC, HAS THE AUTHORITY TO MODIFY THE OBLIGATIONS OR LIMITATION OF THIS WARRANTY.**

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state; therefore, some of the limitations stated above may not apply to you. It is to your benefit to save your documentation upon purchase of a product.

**Specification Form:**

Surface shall be Arborite Compact Laminate

Produced by Arborite,

Type: S013 (1/8"), S025 (1/4"), S031 (5/16"), S038 (3/8"), S050 (1/2"), S075 (3/4"), S100 (1")

Surface

Color Number: \_\_\_\_\_

Color Name: \_\_\_\_\_

Finish

Code: \_\_\_\_\_

Name: \_\_\_\_\_

**Specification Form:**

Surface shall be Arborite ArboChem Compact Laminate

Produced by Arborite,

Type: S013 (1/8"), S025 (1/4"), S050 (1/2"), S075 (3/4"), S100 (1")

Surface

Color Number: \_\_\_\_\_

Color Name: \_\_\_\_\_

Finish

Code: MA

Name: MATTE

**Specification Form:**

Surface shall be Arborite Fire Rated Compact Laminate

Produced by Arborite,

Type: SF25 (1/4"), SF50 (1/2"), SF75 (3/4"), F100 (1")

Surface

Color Number: \_\_\_\_\_

Color Name: \_\_\_\_\_

Finish

Code: \_\_\_\_\_ CA \_\_\_\_\_

Name: \_\_\_\_\_ Cashmere \_\_\_\_\_