

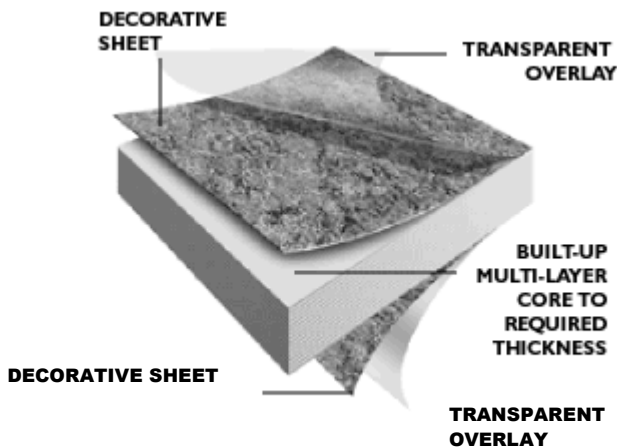
**Manufacturer**

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. Class B / Class 2 Fire Rating.
- 2) **Arborite Fire Rated 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. Class A / Class 1 Fire Rating.
- 3) **Arborite ArboChem 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\***

Product Type	Imperial Measure (in.)	Metric Measure (mm)	Thickness Tolerance	Lbs/Sq.Ft	Description
S013 (1/8")	0.125"	3.2 mm	±0.012"	0.895	Double Faced
S025 (1/4")	0.250"	6.4 mm	± 0.0125"	1.81	Double Faced
**S031 (5/16")	0.312"	7.9 mm	± 0.0156"	2.26	Double Faced
**S038 (3/8")	0.375"	9.5 mm	± 0.0187"	2.72	Double Faced
S050 (1/2")	0.500"	12.7 mm	± 0.025"	3.62	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"	7.24	Double Faced

\* Thickness tolerance according to NEMA LD3-2005 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**

Imperial Measure (feet)	Metric measure (mm)
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**

Texture	Surface Gloss Value
Cashmere (CA) Finish – a fine, matte texture with a slight sheen	8-12

### **Arborite Compact Color Availability**

1530	1531	1538	1539	1541	P124	P202	P203	P222	P223
P229	P231	P238	P254	P255	P256	P257	P258	P259	P260
P267	P271	P272	P273	P276	P277	P278	P279	P282	P283
P284	P285	P288	P290	P297	P298	P299	P300	P301	P302
P304	P305	P309	P310	P311	P312	P313	P314	P315	P316
P317	P318	P319	P320	P321	P322	P323	P324	P325	P326
P327	P328	P329	P330	P331	P332	P333	P334	P335	P336
P340	P341	P342	P343	P344	P345	P346	P347	P348	P349
P350	P351	P352	P353	P354	P355	P356	P357	P500	P623
P885	P886	P887	P948	P951	P952	P954	P955	P959	P962
P971	P993	P999	S405	S406	S407	S417	S431	S436	S444
S445	S463	S466	S469	S486	S513	S520	S542	S548	S550
S573	W134	W138	W230	W305	W372	W373	W403	W404	W405
W407	W411	W412	W413	W414	W415	W416	W417	W418	W420
W421	W423	W424	W425	W426	W427	W428	W429	W430	W431
W432	W433	W434	W435	W436	W437	W443	W444	W445	W446
W447	W448	W449	W450	W451					

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

Product Type	Imperial Measure (In.)	Metric Measure (Mm)	Thickness Tolerance	Lbs/ Sq.Ft	Description
SF25 (1/4")	0.250"	6.4 mm	± 0.0125"	1.81	Double Faced
SF50 (1/2")	0.500"	12.7 mm	± 0.025"	3.62	Double Faced
SF75 (3/4")	0.750"	19.0 mm	± 0.037"	5.40	Double Faced
F100 (1")	1.00"	25.4 mm	± 0.050"	7.24	Double Faced

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

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

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

**Arborite Fire Rated Compact Laminate Texture Availability**

Texture	Surface Gloss Value
Cashmere (CA) Finish – a fine, matte texture with a slight sheen	8-12

**Arborite Fire Rated Compact Laminate Color Availability**

1530	1531	1538	1539	1541	P124	P202	P203	P222	P223
P229	P231	P238	P254	P255	P256	P257	P258	P259	P260
P267	P271	P272	P273	P276	P277	P278	P279	P282	P283
P284	P285	P288	P290	P297	P298	P299	P300	P301	P302
P304	P305	P309	P310	P311	P312	P313	P314	P315	P316
P317	P318	P319	P320	P321	P322	P323	P324	P325	P326
P327	P328	P329	P330	P331	P332	P333	P334	P335	P336
P340	P341	P342	P343	P344	P345	P346	P347	P348	P349
P350	P351	P352	P353	P354	P355	P356	P357	P500	P623
P885	P886	P887	P948	P951	P952	P954	P955	P959	P962
P971	P993	P999	S405	S406	S407	S417	S431	S436	S444
S445	S463	S466	S469	S486	S513	S520	S542	S548	S550
S573	W134	W138	W230	W305	W372	W373	W403	W404	W405
W407	W411	W412	W413	W414	W415	W416	W417	W418	W420
W421	W423	W424	W425	W426	W427	W428	W429	W430	W431
W432	W433	W434	W435	W436	W437	W443	W444	W445	W446
W447	W448	W449	W450	W451					

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

- UL
- Class 1

The basic standard to investigate products in this category is UL723, "Test for Surface Burning Characteristics of Building Materials"

#### **Performance Properties:**

Flame spread : 25  
Smoke developed: 200

**Arborite ArboChem Compact Laminate Thickness**

Product Type	Imperial Measure (In.)	Metric Measure (Mm)	Thickness Tolerance	Lbs/ Sq.Ft	Description
S013-LAB (1/8")	0.125"	3.2 mm	± 0.012"	0.895	Double Faced
S025-LAB (1/4")	0.250"	6.4 mm	± 0.0125"	1.81	Double Faced
S050-LAB (1/2")	0.500"	12.7 mm	± 0.025"	3.62	Double Faced
S075-LAB (3/4")	0.750"	19.0 mm	± 0.037"	5.40	Double Faced
S100-LAB (1")	1.00"	25.4 mm	± 0.050"	7.24	Double Faced

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

**Standard Panel Sizes for ArboChem Compact Laminates**

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 Value
Matte (MA) Finish –a fine beaded texture with a slight sheen	14-18

**ArboChem Compact Laminates Color Availability**

P500	P885	P886	P887	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 x 10 <sup>2</sup> (18000)	1.24 x 10 <sup>2</sup> (18000)
		MPa (psi) CD Min.	8.27 x 10 <sup>1</sup> (12000)	8.27 x 10 <sup>1</sup> (12000)
D 790	Flexural Modulus (Modulus of Elasticity)	MPa (psi) MD Min.	1.10 x 10 <sup>4</sup> (1.6 x 10 <sup>6</sup> )	1.10 x 10 <sup>4</sup> (1.6 x 10 <sup>6</sup> )
		MPa (psi) CD Min.	9.65 x 10 <sup>3</sup> (1.4 x 10 <sup>6</sup> )	9.65 x 10 <sup>3</sup> (1.4 x 10 <sup>6</sup> )
D 638	Tensile Strength	MPa (psi) MD Min.	1.24 x 10 <sup>2</sup> (18000)	1.24 x 10 <sup>2</sup> (18000)
		MPa (psi) CD Min.	8.27 x 10 <sup>1</sup> (12000)	8.27 x 10 <sup>1</sup> (12000)

PROPERTY	GRADE** UNITS	COMPACT LAMINATE	
		>6.0 mm (± 5% of thickness) >0.236" (± 5% of thickness)	2.0-6.0 mm (± 0.30 mm) 0.125" - 0.236" (± 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:**

Acetic Acid (all concentrations)  
 Aqua Regia \*\*  
 Chromic Trioxide (Chromic Acid Cleaning Solution)\*  
 Formic Acid (all concentrations) \*  
 Glacial Acetic Acid 99% (concentrated)  
 Hydrochloric Acid (all concentrations)  
 Hydrofluoric Acid 48% (concentrated) \*  
 Nitric Acid (all concentrations) \*\*  
 Perchloric Acid (concentrated)  
 Phosphoric Acid (all concentrations)  
 Picric Acid 1.2% (0.05M)  
 Sulfuric Acid (all concentrations) \*\*  
 Tannic Acid (sat.)  
 Uric Acid (sat.)

### **Solvents:**

Acetone  
 Amyl Acetate  
 Amyl Alcohol  
 Butyl Alcohol  
 Carbon Disulfide  
 Carbon Tetrachloride  
 Chlorobenzene  
 Chloroform  
 Cresol  
 Dimethyl formamide  
 Dioxane  
 EDTA  
 Ethyl Acetate  
 Ethyl Alcohol  
 Formaldehyde  
 Methanol  
 Methyl Ethyl Ketone  
 Methylene Chloride  
 Naphthalene  
 nHexane  
 Phenol (all concentrations)\*  
 Tetrahydrofuran

Toluene  
 Trichloroethane  
 Xylene

### **Bases:**

Ammonium Hydroxide (all concentrations)  
 Sodium Hydroxide (all concentrations) \*\*  
 Sodium Sulfide 15%

### **General Reagents:**

Alconox (Lab. Detergent)  
 Aluminon  
 Ammonium Phosphate  
 Aromatic Ammonia  
 Benedicts Solution  
 Blood  
 Calcium Hypochlorite (concentrated)  
 Camphorated parachlorophenol \*  
 Cellosolve  
 Coffee, black  
 Copper Sulfate  
 Ether, 1:20  
 Ethylene Glycol  
 Eucalyptol  
 Formalin  
 Gasoline  
 Hydrogen Peroxide 3%  
 Iodine  
 Karl Fisher Reagent  
 Kerosene  
 Lactated Ringers  
 Lysol™  
 Methyl Methacrylate  
 Milk, homogenized  
 Mineral Oil  
 Monsel's Solution (Ferric Sub sulfate)  
 Naphtha  
 Orange juice  
 Petroleum Jelly  
 Phosphate Buffered Saline (PBS)

Pine Oil  
 Potassium Permanganate  
 Povidone Iodine  
 Procaine  
 Quaternary Ammonia Compounds  
 Silver Nitrate  
 Sodium Azide  
 Sodium Chromate  
 Sodium Hypochlorite 5%  
 Sodium Thiocyanate  
 Sucrose 50%  
 Thymol & Alcohol  
 Tide™  
 Tincture of Iodine  
 Tincture of Mercurochrome  
 Tincture of Merthiolate  
 Trisodium Phosphate 30%  
 Urea  
 Vegetable Oil  
 Vinegar  
 Water  
 Zephiran Chloride  
 Zinc Chloride  
 Zinc Oxide Ointment

### **Stains and Indicators:**

Ag Eosin Bluish 5% in Alcohol  
 Bromothymol Blue  
 Cresol Red  
 Crystal Violet  
 Gentian Violet 1%  
 Gram Stains  
 Malachite Green  
 Methyl Orange  
 Methyl Red  
 Methylene Blue  
 Nigrosine (India Ink)  
 Phenolphthalein  
 Safranin O  
 Sudan III  
 Thymol Blue  
 Wright's Blood St

\* 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 16-24 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.

## 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.

## Care and Maintenance

To clean the surface of compact grade 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.

## 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 fruit carbide blades can be used to remove rough edges. CNC routers typically will run at 16000 to 18000 RPM's at 400 to 900 inches per minute. (dependent on thickness of panel and type of cut)

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

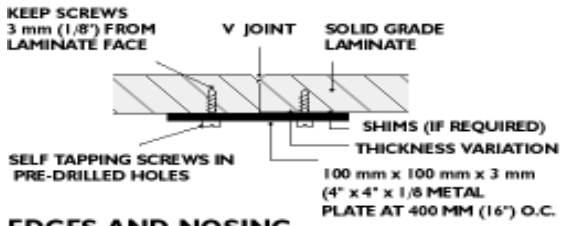
## Installation

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

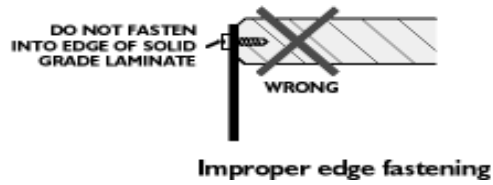
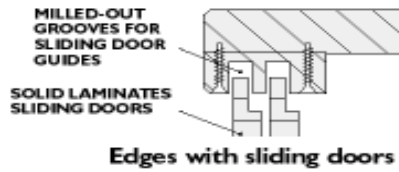
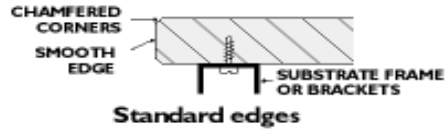
Surface mounted objects should be secured into the face or back of the laminate using self-tapping screws in pre-drilled holes. **IMPORTANT NOTE: Do not screw into the edges of Compact Grade laminate.**

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.

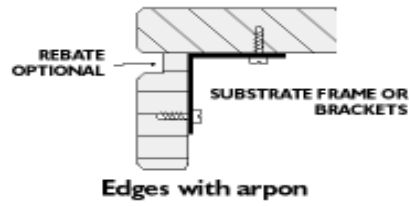
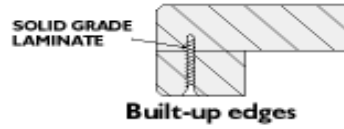
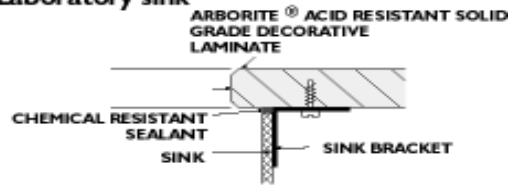
## JOINTS



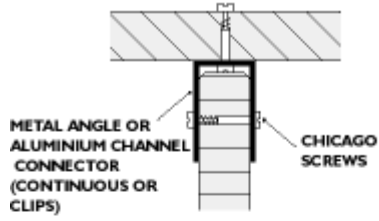
## EDGES AND NOSING



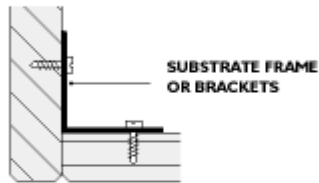
## Laboratory sink



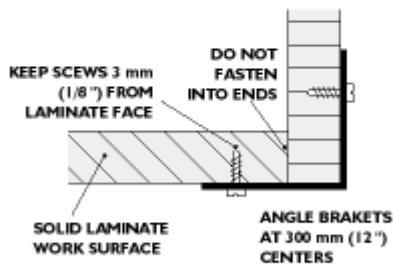
## INTERSECTIONS



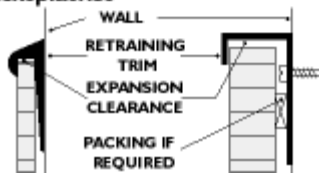
Tee intersection



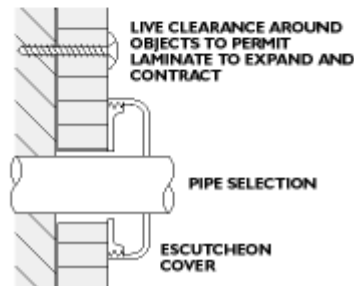
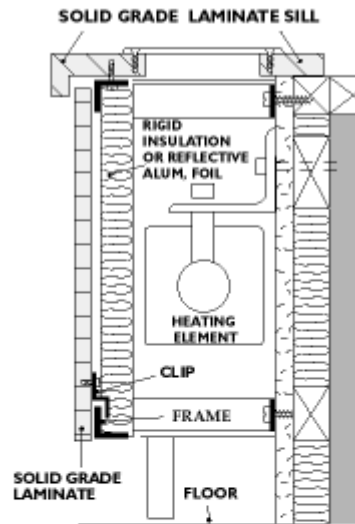
Outside corner



## Backsplashes



## HEATING ENCLOSURE, WINDOW SILL



Pass-thru object

## **Warranty**

Arborite, division of ITW Canada, 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 ITW CANADA , 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-LAB (1/8"), S025-LAB (1/4"), S050-LAB (1/2"), S075-LAB (3/4"), S100-LAB (1")

Surface

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

Finish

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

**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: \_\_\_\_\_

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