ABET LAMINATI

TECHNICAL DATA
HIGH PRESSURE LAMINATE
0.9 mm (0.035") PLASTIC LAMINATE
R0120

Manufacturer

Abet Laminati
1-800-228-2238
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Product Description

Basic Uses: ABET LAMINATI 0.9 mm HPL is manufactured for interior horizontal and vertical surfaces. Typical horizontal applications include work surfaces on counters, table tops, residential and commercial furniture, case goods, store fixtures, and work stations. Vertical applications include wall panels, cabinet walls, doors, toilet partitions, elevator cab interiors, front panels of workstations in hospitals, restaurants, retail stores, and airports. Postforming grade is available on a custom order basis. It has the capability to achieve radius edges for counters, desktops, and store fixtures.

Metals are never recommended for horizontal surfaces where wear and traffic are an issue. In general, darker laminates show scratches more readily than lighter colors. Consider this when choosing a surface that experiences traffic.

Composition: ABET LAMINATI high pressure decorative laminate is manufactured by pressing melamine impregnated print and solid color surface sheets over a phenolic impregnated kraft paper core at pressures over 1000 psi and temperatures of approximately 300 degrees F (149 degrees C). The backs are sanded to facilitate bonding to a substrate.

Limitations: ABET LAMINATI high pressure decorative laminate is not recommended for exterior applications or for bonding to gypsum wallboard, plaster, concrete or plywood. This product is not a structural material and is to be used bonded to a suitable substrate. Do not use in areas with extreme humidity conditions or temperatures higher than 275 degrees F (135 degrees C) for extended periods of time. This product is not to be exposed to continuous, direct sunlight. Metalli laminates do not meet regular wear resistance requirements and should not be used in high wear areas.

Surface scratches are as much a function of color and finish as surface hardness. In general, Lucida (gloss) finish and darker colors show scratches more than Sei (matte) finish and lighter colors.

Cost varies with quantity, pattern, finish and other factors. Contact your ABET representative for pricing.

Colors and Patterns: This grade is available in a full range of solid colors, woodgrains, patterns, stones, metals, marbles, and Iridescenti colors. Check an actual sample for color before specifying. Silkscreen and digital print patterns are available on special order.

Finishes:

Sei	A smooth textured finish with a moderate reflectivevalue
Soft	A smooth low sheen finish
Lucida	A high gloss finish
Millerighe	A horizontal line embossed finish
Millerighe-2	A horizontal line embossed finish
Fiber	A fiber inclusion embossed finish
Mandarin	A pebbled textured finish with moderate reflectivevalue
Nutshell	A woodgrain tick embossed pattern

Magma	An embossed stone pattern
Muro	An embossed pattern
Multirighe	An embossed line pattern
Satinata	A brushed metal pattern
Onda	An embossed grooved curve pattern
Polaris	A velvety smooth low sheen finish
Morbida	A matte finish pleasant to touch
Grainwood	A woodgrain embossed vertical pattern
Holz	A woodgrain tick embossed pattern
Climb	A slightly raised stone like pattern
Root	A woodgrain embossed vertical pattern
Papier	A matte finish tactile properties of paper
Sei Due	A low sheen finish
Microline	A finely ribbed vertical texture
Cross	A woodgrain embossed horizontal pattern
Dharma	A leather like embossed pattern
Aquarama	A woodgrain embossed cross grain pattern

Sheet Size:	51" (130 cm) x 120" (305 cm)
Thickness:	0.035" (0.9 mm)

FABRICATION AND ASSEMBLY

ABET LAMINATI laminates should be bonded to suitable substrates such as particleboard and medium density fiberboard (MDF) with suitable contact, semi-rigid (PVAc) or rigid (urea or resorcinol) adhesives. The choice of adhesives is based upon the service for which the assembly is intended and the bonding facilities available. In all cases, the adhesive manufacturer's instructions for use should be followed closely. Pressures in excess of 45 psi should not be used since this could cause a starved glue line or telegraphing of the core.

Backer sheets are recommended for use on the back of the panel assemblies to protect the substrate from humidity changes and reduce warpage.

All laminates are to be inspected prior to lamination to ensure they are sound, clean, and free of surface defects. Protective peel coat should be removed prior to inspection. Imperfections found on coated products after fabrication may not be protected by any warranty.

High-pressure decorative laminates and substrates should be allowed to acclimate for at least 48 hours at the same ambient conditions. Optimum conditions are approximately 23 degrees C (73 degrees F) and a relative humidity of 45% to 55%.

To avoid stress cracking, do not use square-cut inside corners. All cutouts should be routed or filed to ensure smooth edges. A radius of 3.175 mm (1/8") or larger in the corners is recommended to minimize stress cracking.

Drill oversize holes (at least 0.05 mm or 0.002" larger in diameter) for screws and bolts.

Material, equipment, and workmanship should conform to industry standard practices, conditions, procedures, and recommendations as specified by ANSI/NEMA LD-3-2000 Standard for High Pressure Decorative Laminates, Annex A, Application, Fabrication, and Installation; or Architectural Woodworking Institute (AWI) "Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program".

TECHNICAL DATA

ABET LAMINATI high pressure decorative 0.9 mm laminate is manufactured to conform to the requirements of ANSI/NEMA Standard LD-3-2005 Standard for High Pressure Decorative Laminates, ISO 4586, High Pressure Decorative Laminates, and EN-438.

PHYSICAL PROPERTIES OF HORIZONTAL LAMINATES

NEMA TEST	TYPICAL ABET 0.9 mm Horizontal PF	NEMA STANDARD HGP
Thickness	0.035" +- 0.004" (0.9 mm +- 0.1 mm)	0.034" – 0.044" (1.0 mm +- 0.12 mm
Light Resistance	No effect	Slight effect
Cleanability (cycles)	9	20 max.
Stain Resistance Reagents 1 – 10 Reagents 11 – 15	 No effect No effect	 No effect Moderate effect
Boiling Water Resistance	No effect	Slight effect
High Temperature Resistance	No effect	Slight effect
Linear Glass Scratch Resistance	<200 grams	No Requirement
Ball Impact Resistance	925 mm	750 mm minimum (55 inches)
Dart Impact Resistance	375 mm	300 mm minimum (22 inches)
Radiant Heat Resistance	161 seconds	100 second minimum
Dimensional Change MD CD	0.22% 0.60%	1.1 % maximum 1.4 % maximum
Room Temperature Dimensional Stability MD CD	0.12% 0.34%	1.0 % maximum 1.3 % maximum
Wear Resistance	750 cycles	400 cycles minimum
Formability	10 mm (MD) 6 mm (CG)	16 mm radius minimum (5/8 inch)
Blister Resistance	44 seconds	40 second minimum

FIRE TEST DATA

Test data to determine compliance with the International Building Code and the NFPA 101 Life Safety Code are obtained according to ASTM E- 84 Standard Test Method for Surface Burning Characteristics of Building Materials (UL Standard 723 "Test for Surface Burning Characteristics of Building Materials" or NFPA 255 "Method of Test of Burning Characteristics of Building Materials").

Typical Flame Spread and Smoke Developed Values

Product Type	Test Condition	Flame Spread	Smoke Developed
0.9 mm	Unbonded	40	140
0.9 mm	Bonded to incombustible Core with Adhesive	55	85
0.9 mm	Bonded to FR Particleboard Core with Adhesive	45	130

POSTFORMING INFORMATION

Using regular infra-red heaters postforming equipment, Abet 0.9 mm postforming laminate will postform to a 7 – 9 mm radius at a nominal surface temperature range of 325 degrees F to 340 degrees F with a time of 25 to 30 seconds. Due to the different types of machines used to postform laminate and complex bullnose designs, it is recommended that the laminate surface reach 325 degrees F before you start bending and that the time under pressure be kept to a minimum in order that the surface not exceed 375 degrees F.

The postforming of laminates is influenced by the following:

1. Radiation wavelength of heater
2. Heat output
3. Distance from heat source to laminate surface
4. Voltage fluctuations within supply grid
5. Heat absorption of laminate, which varies according to color, texture, and laminate thickness
6. Type and quantity of adhesive used
7. Temperature of laminate and core substrate
9. Thickness of substrate
10. Radius and type of bend (s)

MAINTENANCE AND CARE

ABET high pressure laminates have a hard, durable melamine surface and will maintain their attractive appearance longer than most other decorative surfacing materials and requires minimal maintenance. The decorative surface may be cleaned with warm water and a mild soap or detergent using a dampcloth or sponge. Difficult stains such as coffee or tea can be removed using a mild household cleaner/detergent and a soft bristle brush, repeating as necessary.

Do not use abrasive pads, scouring powders or cleansers as they may permanently dull or scratch the laminate surface making it susceptible to staining. Harsh chemicals such as oven cleaner, toilet cleaner, drain cleaner, and acids and alkalis chemicals will etch and discolor the decorative surface Free copies of our "Care and Cleaning of Laminates Guide" is available.

TECHNICAL SERVICE

For samples, literature and technical assistance, call our toll-free line 800-228-2238 from 8:30 AM to 5 PM, Monday thru Friday, East Coast time, or visit our web site www.naabetlaminati.com.