

## ABET LAMINATI

## TECHNICAL DATA COESO LAMINATE 8 MM (0.32") PLASTIC LAMINATE R605

### Manufacturer

ABET Inc.

60 West Sheffield Ave.

Englewood, NJ 07631

Telephone: (201) 541-0700 or (800) 228-2238

Fax: (201) 541-0701

Web Site: [www.abetlaminati.com](http://www.abetlaminati.com)

### PRODUCT DESCRIPTION

**Basis Uses:** ABET LAMINATI 8 mm (0.32") COESO laminate is manufactured for self-supporting shelving, fixtures, counter tops, and other applications needing a high impact, self-supporting panel. This grade is usually furnished with a postformed bull-nose edge (1/2" radius).

ABET 8 mm COESO laminate has the following outstanding properties compared to woodcore products:

- Outstanding self-supporting properties compared to postformed counter tops, other laminated covered wood cores, MDF, and particleboard.
- Good dimensional stability and flatness.
- High surface and edge impact resistance.
- Excellent moisture and water resistance.
- Excellent hygiene characteristics.
- High resistance to chemicals and organic solvents.
- Excellent resistance to termites.
- Excellent resistance to fire.
- Simple and quick assembly without the need for edging and adhesives.

**Composition:** ABET COESO high pressure laminate is manufactured by pressing melamine impregnated printed and solid color surface papers over phenolic impregnated kraft sheets at pressures over 1000 psi pressure and temperatures of approximately 300 degrees F (149 degrees C). The decorative surface is the same on both surfaces to provide a flat and good dimensional stable laminate.

**Limitations:** ABET COESO high pressure laminate is not recommended for exterior applications. Do not use in areas with temperatures higher than 150 degrees F (65 degrees C) for extended periods of time. This product is not to be exposed to continuous, direct, sunlight. Iridescent colors, fiber patterns, and metallic products do not meet regular wear resistance requirements and should not be used in high wear areas. While instruments may be mounted on ABET COESO laminates, ABET does not warranty any electrical properties.

**Colors and Patterns:** ABET COESO laminates are stocked in selected prints and solid colors. Additional colors are available on special order. Check an actual sample for color before specifying. In order to provide a flat panel the colors are identical on both surfaces.

**Finishes:** Sei, Mandarin, Smalto, Zodia

**Sheet Size:** 13' x 26 1/8" with 1 1/2" bullnose

**Thickness:** 8 mm (0.32")

**Weight:** 1.8 lb/sq. ft.

## FABRICATION AND ASSEMBLY

### Conditioning, Cutting, and Drilling

ABET COESO compact laminates should be allowed to acclimate for at least 48 hours before fabrication and assembly. Optimum conditions are approximately 23 degrees C (73 degrees F) and a relative humidity of 45 % to 55 %. When cutting the rate of feed will depend on the thickness of the panel and the required quality of the cut. Chipping of the lower surface may be avoided by altering the angle at which the blade emerges. The use of scoring blade avoids this problem altogether. The saw blade marks may be eliminated on the edge by using a router with a 2-flute straight bit or a solid carbide spiral bit.

Carbide-tipped saw and router blades should be used for cutting. Cutting blades should be kept very sharp and a hold down used to prevent vibration.

The edges may be polished with a lemon oil furniture polish to obtain a semi-gloss finish.

Drill oversize holes for screws or bolts. The drill diameter should be at least 0.05 mm (0.002") larger than the specified diameter of the hole. Secure objects to the surface of the laminate with self-tapping screws in predrilled holes. With self-tapping screws, the hole must always be predrilled with the diameter of the hole being smaller than the external diameter of the screw. The depth of the hole must be at least 1 mm greater than the depth of penetration of the screw. The finer the thread, the firmer the screw holding.

**Inspection:** All laminates are to be inspected prior to lamination to ensure they are clean and free of surface defects. Protective peel coat should be removed prior to inspection.

**Cutouts:** 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 6.35 mm (1/4") or larger in the corners is recommended to minimize stress cracking for an inner side of 10" or less. This radius must gradually be increased for openings with a longer inner side.

**Industry Practices:** 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 COESO compact laminate meet the requirements of ANSI LD-3-2000 of ANSI/NEMA LD-3-2000, Standard for High-Pressure Decorative Laminates, ISO 4586, High Pressure Decorative Laminates, and EN-438.

### PHYSICAL PROPERTIES OF COESO COMPACT LAMINATES

NEMA TEST		TYPICAL ABET 8 MM (0.32") LAMINATE	NEMA REQUIREMENTS CGS
Thickness		8.0 mm+- 0.4 mm	+5%
Light Resistance		No effect	Slight effect
Cleanability (cycle)		9	20 max
Stain Resistance			
Reagents 1 – 10		No effect	No effect
Reagents 11 – 15		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		> 2000 mm > 80"	1900 mm 75"
Dart Impact Resistance			No requirement
Radiant Heat Resistance		> 200 seconds	200 seconds min
Dimensional Change	MD	< 0.20 %	0.30%
	CD	< 0.40 %	0.70%
Room Temperature Dimensional Stability	MD	< 0.15 %	0.30%
	CD	< 0.30 %	0.70%
Wear Resistance		750 cycles	400 cycles min.
Blister Resistance		> 250 seconds	200 seconds min

## PERFORMANCE PROPERTIES FOR COESO, MDF, AND PARTICLEBOARD

TEST METHOD	PROPERTY	UNITS	MDF Grade 130	PARTICLEBOARD Grade M-2
ASTM D-790	Modulus of Elasticity	psi, MD	350,000	326,000
ASTM D-1037		psi, CD		
ASTM D-790	Flexural Strength	psi, MD		
ASTM D-1037		psi, CD		
ASTM D-638	Modulus of Rupture	psi, MD	3,500	2,100
ASTM D-1037		psi, CD		
ASTM D-1037	Internal Bond	psi	87	65
ASTM D-1037	Hardness	pounds		500
ASTM D-1037	Screw Hold	face, lbs	298	225
ASTM D-1037	Thickness Swell, 24 hr	%	10 max.	8 max
ASTM D-1037	Density	lb./cu.ft.		40 - 50
Note: Physical properties for COESO used ASTM D-790 and ASTM D-636 test methods and NEMA LD-3 requirements. MDF and particleboard used ASTM D-1037 test methods and ANSI test values.				

### TRANSPORTATION AND STORAGE

COESO compact laminates should always be transported on flat, stable pallets and secure the panels so that they do not slip. Make sure panels do not slide over each other during loading and unloading operations. Lift them by hand or with means of a suction cup hoisting device. Dirt, foreign bodies and sharp edges rubbing against the surface can cause damage. Store the panels in a closed place where normal climatic conditions are guaranteed. Stack the panels on top of each other on a flat base. Never stand the panels on edge. The protective film, if applied, must be removed simultaneously from both surfaces.

### MAINTENANCE AND CARE

COESO compact 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 damp cloth or sponge. Difficult stains such as coffee and 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 cleaners as they may permanently dull or scratch the laminate surface making it susceptible to staining. Harsh chemicals such as oven cleaners, toilet cleaner, drain cleaner, and acids and strong alkalis chemicals will etch and discolor the decorative surface. Free copies of our "Care and Cleaning of Laminates Laminates Guide" is available.

### TECHNICAL SERVICE

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