

## DIAFOS and Colorpact by ABET LAMINATI

DIAFOS and Colorpact are decorative high pressure laminate surfaces. DIAFOS is available as a translucent product, backed for lay up applications. Colorpact is a color through laminate.

DIAFOS is the first translucent laminate with three-dimensional design. Available in many patterns, DIAFOS is created with translucent paper and melamine resin. Used as decorative dividing panels or as facing for light sources, the 3D designs add texture and style to any space. When backed, DIAFOS can be used for vertical and light horizontal applications. DIAFOS also comes in solid colors both backed and translucent.

Colorpact is a high pressure laminate with color through the entire thickness of the sheet.

Each sheet of both DIAFOS and Colorpact is 130cm x 305cm (approx. 51" x 120").

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## DIAFOS / Colorpact TECHNICAL INFORMATION

PROPERTY	TEST METHOD	UNIT OF MEASURE- MENT	RESULTS		
			BACKED DIAFOS	TRANS-LUCENT DIAFOS	SELF-SUPPORTING DIAFOS
THICKNESS	EN 4382.4	MM	1.2 +/- 0.1	1.6 +/- 0.01	12 +/- 1
DENSITY	DIN 53 479	Kg / m <sup>3</sup>	1.500	1.500	1.500
ABRASION RESISTANCE	EN 438 / 2.6	REVOLUTIONS	>400	>400	>400
DIMENSIONAL STABILITY AT 20 <sup>0</sup> C	EN 438 / 2.10	% longitudinal % transverse	≤ 0.3 ≤0.6	≤ 0.3 ≤0.6	≤0.08 ≤0.15
SCRATCH RESISTANCE	EN 438 / 2.14	N	>2.5	>2.5	>2.5
STAIN RESISTANCE	EN 438 / 2.15	DEGREE	GROUPS 1-2=5 GROUPS 3-4≥4	GROUPS 1-2=5 GROUPS 3-4≥4	GROUPS 1-2=5 GROUPS 3-4≥4
SOLIDITY OF COLORS IN XENON LIGHT	EN 438 / 2.18	BLUE WOOL SCALE	≥6	≥6	≥6
RESISTANCE: CIGARETTE BURNS	EN 438 / 2.18	DEGREE	≥3	≥3	≥3
ROCKWELL HARDNESS	ASTM D 785	HRE	-	110	-
DIFFUSE TRANSMISSION FACTOR	-	%	-	42.5	-
FIRE RESISTANCE	CSE RF 2/75/A RF 3/77	-	CLASS 1	CLASS 1	CLASS 1

NOTE: Due to the particular manufacturing techniques used, the presence of longitudinal bands on the panels and possible variations in tone between panels should not be considered a defect.

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**Limitations:** Because the specific composition of DIAFOS high pressure decorative laminates and its particular applications and uses are different from regular high pressure laminates, customers must be aware of the following limitations:

- Due to the particular manufacturing techniques used, the presence of longitudinal bands and possible variations in tone or color between panels should not be considered a defect in Diafos.
- Diafos and Colorpact expand and contract up to 1/8"/3 ft longitudinally and 1/4"/3 ft in the width direction with changes in relative humidity. See conditioning requirements.
- Diafos and Colorpact are not recommended for exterior applications or for bonding to gypsum wallboard, plaster, concrete, or plywood.
- Do not use these products in high humidity conditions or temperatures higher than 130 degrees F (54 degrees C) for extended periods of time.
- Avoid using these products close to lamps or sources of heat that can raise the temperature of the material in a limited area.
- This product is not to be exposed to continuous, direct sunlight.
- Contact adhesives are not recommended for bonding the 1.2 mm backed DIAFOS or Colorpact to a core.
- The 1.6 mm DIAFOS laminate must always be cut so the length direction is the longest side. Maximum distances between fixed points for the 1.6 mm DIAFOS is 36 inches in length and 12 inches in width.
- Because Diafos is comprised of several layers of translucent material particulate matter may find itself imbedded between the sheets. This is not common to all sheets but is not considered a defect when it occurs.

## INSTRUCTION FOR MACHINING AND APPLICATION

### 1.6mm DIAFOS

#### **TRANSPORT AND STORAGE:**

Even after cutting, DIAFOS sheets must be kept in a horizontal position, supported for their whole length and not positioned on edge.

#### **CUTTING:**

It is important to cut the sheets only using table saws adjusting the blade height precisely to prevent chip out on the backside. Best results are achieved with a second groove blade.

#### **BORING:**

Attention must be given to hole diameter and ID edge. Bore must be cut cleanly to prevent cracks commencing from rough ID edges. These occur as temperature and ambient humidity changes.

When drilling to create fastening points always create a sleeve between the bolt / screw and the DIAFOS. Sometimes a rubber grommet can fill this role. The specific application will govern the type of sleeve needed. Failure to buffer the fastener and DIAFOS will almost certainly result in cracking of the sheet.

#### **JIG SAWING:**

The use of a jigsaw to cut edges is discouraged. The resultant jagged edges become the beginnings of cracks. Router edging offers best results.

#### **APPLICATION TIPS:**

- DIAFOS contracts and dilates up to 3mm/meter longitudinally and 6mm/meter transverse with temperature or humidity change.

It is advisable to condition the material in a room with a temperature of about 68<sup>0</sup> F. and relative humidity of 50% before application.

- It is important to avoid using this material close to lamps or sources of heat that can raise the temperature of the material in a limited area. It is important to guarantee good air circulation on both sides.
- The sheet must always be cut so that the longitudinal direction is the long side of the piece. The maximum distances between fixed points are:  
Longitudinal = 35 inches  
Transverse = 12 inches
- Fastening DIAFOS is done in two ways: framing the sheet (for example, an extruded aluminum frame) or creating fixed fastening points. When fastening with bolts to fixed points always use a soft washer. Failure to do so will cause the material to crack from the pressure of the bolt.

### **DIAFOS / Colorpact 1.2mm SANDED BACK**

#### **CUTTING:**

Only use table saw and router to cut.

#### **BORING:**

See guidelines for 1.6mm material.

#### **JIG SAWING:**

See guidelines for 1.6mm material.

**BALANCING:**

It is advisable to use the same materials on both surfaces. DIAFOS / Colorpact backer is available from ABET LAMINATI. Before using other materials to balance DIAFOS or Colorpact, preliminary tests must be performed.

**BONDING:**

Rigid glue lines are strongly recommended. This is particularly true where drilled holes, internal cuts or inside radii are needed. PVA, aliphatic and urea-formaldehyde adhesives work well. Contact adhesives do not.

**SUBSTRATES:**

Recommended –

- MDF
- Particleboard

Not Recommended –

- Drywall
- Plywood

For other substrates not listed above, please contact your local ABET LAMINATI representative.

When creating panels avoid any substrate less than ¼” thick.

Substrates vary in moisture absorption, warp stress, and general dimensional stability. Most applications will require a balance sheet. Overall, the thicker the substrate is the greater the stability of the finished panel.

**INTERNAL CUTOUTS:**

All internal cutouts must have a radius not less than ¼” for an inner side of 10”.

This radius must gradually be increased for openings with bigger inner sides.

**CARE AND MAINTENANCE  
OF DIAFOS / Colorpact**

ABET LAMINATI High Pressure Laminate can be cleaned with a clean damp cloth or sponge using a mild soap or detergent. General-purpose cleaners are also very effective. Ammonia or vinegar based glass cleaners are best for cleaning surfaces soiled by grease. Abrasive cleaners and metal (or abrasive coated) scouring pads should not be used on laminate since they can permanently scratch and dull the surface and make it more susceptible to staining. Water spots can be removed by using any non-bleach bathroom cleaner. If unsure, contact your local ABET LAMINATI representative.

**CAUTION:** We do not recommend the use of any cleaners with bleach or anti-bacterial formulas as they may damage the finish. Aggressive rubbing in one area can cause a burnish to appear, causing that spot to appear shinier than the rest of the surface.

**ATTENTION:** ABET LAMINATI offers this information solely to provide suggestions for your application, since it is impossible to anticipate all variations in actual end use conditions. ABET LAMINATI cannot assume liabilities in connection with the use of this information.