# **Technical Bulletin**





# **Product Description**

Duet<sup>™</sup> Wall Panels are the wall protection panels for commercial interior applications requiring design elements as well as high sanitary standards, including moisture, mold and mildew resistance. This is the hard-working, easy-to-clean surface solution needed to satisfy any design vision. Digitally printed with the highest-quality inks and scratch-resistant coating, Duet Wall Panels offer high impact strength and will never rot, corrode, rust or delaminate. In addition to these key features, Duet Wall Panels come with a five-year warranty against fading from ultra-violet sources. Available in 10 standard as well as custom patterns to meet specific design visions. Manufactured in standard building product sizes, it can be installed on most common substrates and finished with division bar molding perfectly matched to the panel pattern with enhanced scratch-resistant coating.

# Class C Duet Wall Panels, .075"

# **Typical Uses**

Duet Wall Panels are manufactured and tested to perform in wall and ceiling applications in numerous facilities such as: commercial kitchens, restaurants, grocery/supermarket, convenience stores, airports, retail department stores, sports facilities and complexes and many others.

#### **Physical Properties**

Property	Typical Value	Test Method
Flexural Strength, psi	13,000	ASTM D790
Flexural Modulus, psi x 106	0.54	ASTM D790
Tensile Strength, psi	6,100	ASTM D638
Tensile Modulus, psi x 10 <sup>6</sup>	0.33	ASTM D638
Tensile Elongation, %	2.50	ASTM D638
Izod Impact, ft-lb/in notched	3.70	ASTM D256
Barcol Hardness	35	ASTM D2583
Coefficient of Linear Thermal		
Expansion (x 10-5 in/in/°F)	3.80	ASTM D696
Water Absorption, %	0.20	ATSM D570
Surface Burning	Class C	ASTM E-84

## **Specifications**

Panels are produced in a continuous laminating process in various widths and lengths as required.

#### Composition

- 1. Random chopped fiberglass roving reinforcement.
- 2. Resin mix: Polyester copolymer, inorganic fillers, pigments and catalysts.
- 3. Printed Surface: High quality inks and scratch-resistant coating.

# **Finished Panel Quality**

- The top/outer side of the panels available in smooth printed patterns protected by scratch-resistant coating. Pattern specified is uniformly printed and repeated based on pattern design. Coating is clear and uniformly applied to the printed panel surface. The bottom/inner side of the panels are smooth and will not be printed. Imperfections on the inner side that do not affect panel performance are not cause for rejection.
- 2. Product quality standards:
  - a. Thickness: +/- 10%
  - b. Width and length tolerance: 1/8" up to and including 12' lengths
  - c. Squareness less than or equal to 1/8"

#### **Fabricating Recommendations**

- Protective eyewear and a filtering mask should be worn when cutting Duet Wall Panels.
- 2. When drilling holes in panels, a high-speed carbide drill bit should be used.
- When cutting panels, sheet metal shears may be used along with a circular saw with carbide-tipped blade.
- 4. Machine punch, band saws and table shear may also be used.

### Storage

All Duet Wall Panels should be stored indoors.

# **Temperature Range of Use**

Panels will not be adversely affected in temperatures ranging from -10° F to 140° F. Uses beyond this range should be preapproved by the manufacturer.

#### **Chemical and Stain Resistance**

Chemical and stain testing was completed on Panolam Duet Wall Panels using SEFA procedure 8, Section 8.1. Test panels were cleaned with soap and water and blotted dry prior to conditioning. Panels were conditioned for 48 hours at  $73^{\circ} \pm 3^{\circ}F$  ( $23^{\circ} \pm 2^{\circ}C$ ) and  $50 \pm 5\%$  relative humidity (or the currently accepted ASTM guidelines). The panels were then tested using one of the following methods:

Method A: Volatile chemicals are tested by placing a cotton ball saturated with the reagent in the mouth of a 1-ounce bottle and inverting the bottle on the surface of the panel.

Method B: Non-volatile chemicals are tested by placing five drops of the reagent on the surface of the laminate and covering with a 24mm watch glass.

For both methods, the reagents are left of the panel for a period of 24 hours. The panel is then washed with water, cleaned with detergent, rinsed with deionized water and dried with a towel. The effect of the different reagents is evaluated according to the rating system below, after the laminate has equilibrated at a temperature of  $73^{\circ} \pm 3^{\circ}$ F ( $23^{\circ} \pm 2^{\circ}$ C) and relative humidity of 50% for 24 hours. SEFA criteria for laboratory grade finishes are no more than four Level 3 conditions. Please note that all testing was completed on dark wood pattern; other patterns could show additional visual changes.

2 - Slight surface

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Acids	Level	0 - No Effect	<ol> <li>Slight change in color or gloss</li> </ol>	etch or surface stain	3 -Surface deterioration
Acetic Acid	5.0%	Х			
Acetic Acid	10.0%		Х		
Acetic Acid, Glacial	99.5%				X
Hydrochloric acid	10%			Χ	
Sulphuric Acid	3%		Χ		
Sulphuric Acid	30%		Χ		
Bases					
Ammonium Hydroxide	10%		Х		
Ammonium Hydroxide	28%		Х		
Organic Chemicals					
Hydrogen Peroxide	3%	Χ			
Salts					
Sodium Chloride	10%	X			
Sodium Chloride	60%	X			
Solvents					
Acetone					Х
Ethyl Alcohol	50%			Х	
Mineral Spirits				Х	
Naptha				Χ	
Food and Household	d				
Bleach	<3%	Χ			
Bleach	Conc.		Χ		
Vegetable Oil		X			
Crayon				Χ	
Mustard		X			
Ketchup		X			
Shoe Polish (Black)				X	
Soap Solution		X			

<sup>\*</sup>All test results based on our knowledge of testing procedures

<sup>\*</sup>Tests results may differ by pattern

# Inspection/Installation of Panels

Panels should be inspected on-site, prior to installation. If there are any defective areas that make the panels aesthetically unfit for use, contact Panolam immediately. Upon verification, the defective panel will be replaced by Panolam. Panolam's sole responsibility is the replacement of defective material only, but not for labor or any other installation expenses.

Panels to be installed per manufacturer's installation guide on web site.

#### Certifications

- 1. Meets requirements for Class C per ASTM-E84.
- NSF/ANSI 35 certified.
- Does not support mold or mildew and meets USDA/ FSIS requirements.
- 4. GREENGUARD certified.
- 5. GREENGUARD Gold certified.
- 6. Meets requirements for CAN/ULC S102.

# **Cleaning and Maintenance**

Cleaning Duet Wall Panels on a regular basis is recommended in order to avoid soil or dirt build-up. Recommended cleaners and cleaning methods apply to both embossed and smooth finishes. Duet Wall Panels can withstand repeated cleanings without adverse effect.

A 5 - 10% solution of trisodium phosphate (TSP) and water, not to exceed 130° F, can be used successfully for routine cleaning. Most national home product stores will have TSP in stock. If TSP is not readily available, a 5 - 10% solution of household automatic dishwashing detergent or a mild commercially available cleaner can be used. If a USDA or FDA approved cleaner is required, a neutral cleaner (pH range 6.5- 7.5) is preferred. Do not use strong cleaners or stain removers that contain chlorinated hydrocarbons or acetone as these will dull the surface finish. Do not use abrasive cleaners or steel wool as these will mar the surface. Do not use aromatic solvents like xylene or strong solvents such as acetone.

The surface of the Duet Wall Panels is best cleaned using a sponge or soft cloth. Apply the cleaning solution by working it across the surface in a scrubbing or circular motion. Thoroughly rinse the area with clean warm water to remove all traces of the cleaning solution otherwise there is a possibility of a film build up which will give the panels a dull, dirty appearance. When using a specialty cleaner, follow the manufacturer's instructions. Test a small area prior to applying to the entire surface.

# **Limited Warranty**

Subject to the limitations set forth below, Panolam Industries International Inc. (Panolam) expressly warrants that our products are reasonably free of defects in material and workmanship, and when properly handled and fabricated will conform, within accepted tolerances, to applicable manufacturing specifications as set forth in our technical brochure. This warranty shall extend to the original buyer for a period of twelve (12) months from the date of shipment of this product by Panolam, and shall not be assignable by the original buyer. This warranty does not cover damage resulting from accident, misuse, alteration, abuse or lack of reasonable care.

Due to the variety of uses and applications to which this product may be put, and because the manufacturer has no control over the end products fabricated, the warranty set forth above is exclusive and in lieu of all warranties, expressed or implied, in fact or by operation of law or otherwise, or arising by course of dealing or performance, custom or usage in the trade, including, without limitation, the implied warranties of fitness for a particular purpose and merchantability, and Panolam shall have no obligation or liability to any person or entity in connection with or arising from the furnishing, sale, installation or repair, use or subsequent sale of any product supplied by it.

Our maximum liability arising out of the sale of the products or their use, whether based upon warranty, contract, tort or otherwise, shall not exceed the actual payments received by us in connection therewith.

In no event shall we be liable for special, incidental or consequential damages, including, but not limited to, arising hereunder or from the loss of profits, or loss of use damages, sales of the products.

#### Headquarters

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5/29/2018