

# Applications for **Tedlar**®

July 2020

**DUPONT**



# What is Tedlar®?

Tedlar® is a DuPont registered trademark for a **highly versatile polyvinyl fluoride (PVF) film** that provides a long-lasting finish to a wide variety of surfaces exposed to harsh environments; while its inert, non-stick properties make it an excellent release film.



# Why Tedlar®?

## Interiors

- ✓ Cleanability
- ✓ Chemical/solvent resistant
- ✓ Stain/graffiti resistant
- ✓ Excellent flame & smoke rating
- ✓ Long term protection
- ✓ Endurable style
- ✓ Excellent formability
- ✓ Does not support the growth of Mold and Mildew
- ✓ Heat sealable
- ✓ Ink & print receptive

## Exteriors

- ✓ UV & weather stability
- ✓ Chemical resistance
- ✓ Stain/dirt resistant
- ✓ Temperature stability
- ✓ Colour stability
- ✓ Range of surface gloss
- ✓ Low toxicity & volatiles
- ✓ Bendability
- ✓ Low gas/ vapor permeability
- ✓ Sound transmitting



# Tedlar® PVF Applications

*Proven applications, globally, for over 50 years*



**Aerospace & Transportation**



**Building & Construction**



**Signage**



**Healthcare**



**Industrial**



**Composite Release**



**Photovoltaics**



# Tedlar® PVF Films, Dispersions & Polymers: Demonstrated Substrates & Commercial Applications

Tedlar® Products, Application Process	Substrates that Tedlar® is Applied to...	Applications / Uses
Tedlar® PVF Films & Adhesives, via Lamination	PET	Solar panel backsheets, automotive brightwork
	Steel	Building roofing, siding, etc.
	Aluminum	Building Siding
	Poly ( vinyl chloride) a.k.a. “Vinyl “	Sports domes, tents, wallpaper, signage & graphics, awnings, automotive trims, passenger rails
	Engineering thermoplastics (ABS, polycarbonate)	Hard signs, touch membranes, thermoformed parts, aerospace, skylights
	Aramid (Nomex®, Epoxy and phenolic)	Aerospace panels
	Fiberglass reinforced plywood panels (FRP)	Truck bodies
	Glass reinforced plastic panels (GRP)	Greenhouses, skylights, building panels, electric utility boxes, radome panels
	Scrims	Reinforcement for insulation liners in aerospace
	Foil	PV, pipe jacketing
	Urethane & Vinyl	Roofing, aerostats/blimps
	Dacron™ & Mylar® PET	Sailcloth protection (marine)
	Bitumen	Low angle roofing
	Tedlar® PVF film	Heat seal to create envelopes for gas sampling, acoustical wraps, insulation bags, (Bridge) cable wraps
Tedlar® PVF Dispersions or Polymers, via Coating	PET	Solar panel backsheets, release films, etc.
	PVDF	Chrome-look surfaces (automobiles, rail, appliances)
	Steel	Brake fluid tubing, architectural panels
	Fabrics	Architectural fabrics (tents, domes, etc.)



# Building and Construction Applications: Exteriors

Tedlar® protective film helps extend the look and life of your design, even in the most extreme environments. From severe weather to harsh chemicals, Tedlar® protective film provides long-term durability and performance.

## Application Areas:

- Curtain walls
- Formed or flat metal building panels
- Roofing
- Siding, trims and accents
- Indoor and outdoor fabrics
- Flexible laminates for air-inflated structures, canopies, awnings and stadium domes
- Highway sound barriers
- Pipe and vessel jacketing



# Tedlar® Exterior Installation

Tedlar® on metal lamination installed on roofing & curtain walls

**Building:** Samsan Gymnasium

**Location:** Incheon, South Korea

**Tedlar® surface:** 10,484 m<sup>2</sup>





# Building and Construction Applications: Interiors

Tedlar® protective films do not support mold, mildew growth or bacteria, providing superior surface protection in even the most extreme and high-traffic environments. Additionally, Tedlar® is impervious to harsh chemicals like bleach and easy to clean.

Tedlar® protective film can easily be applied to a range of surfaces, providing the flexibility to design your way, and the surface performance to keep it that way.

## Typical Applications Include:

- Tedlar™ Wallcoverings
- Wall paneling
- Acoustical and ceiling panels
- Flooring
- Doors and window frames
- Furniture
- Healthcare applications
- HVAC





# Tedlar™ Wallcoverings & Wall Paneling: Installations





# Commercial Passenger Aircraft Applications

Tedlar® has protected the interiors of aircraft since 1964 and continues to be an industry standard today.

Tedlar® was specified in commercial aircrafts due to its high standards of nonflammability. It is certified by FAA and EASA with excellent fire resistance properties.

Tedlar® continues to be used because of its durability. Aircraft interiors see thousands of passengers over years and stay looking clean year after year.



## Interiors

- Sidewalls
- Stow bins
- Window shades
- Ceiling panels
- Partitions
- Monuments
- Galleys
- Lavatories
- Closets

## Secondary Structures

- Landing gear bay
- Insulation Blankets
- Cargo protection
- Labeling
- Composite release
- Composite protection





# Passenger Rail Applications

Similar to aircraft, passenger rail sees similar traffic flow of customers through the doors daily.

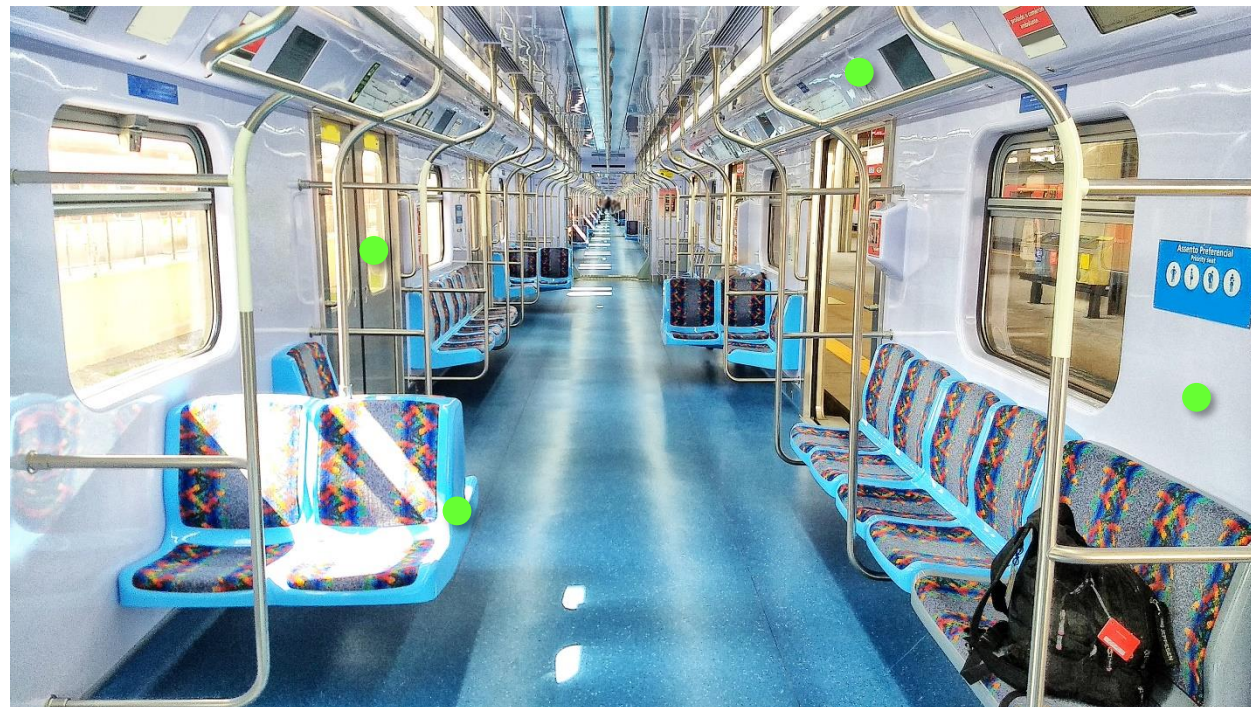
The overall durability, stain resistance, and cleanability make Tedlar® ideal for many different areas inside and outside a rail car.

Tedlar® has great thermoformability making it ideal for manufacturing interior sidewalls.

Tedlar® is resistant to mold and mildew.

## Application Areas:

- Sidewalls
- Doors
- Ceiling panels
- Lavatories
- Closets
- Even HVAC
- Seats casing and backsides
- Partitions
- Galleys
- Graphics and signage
- Interior insulation





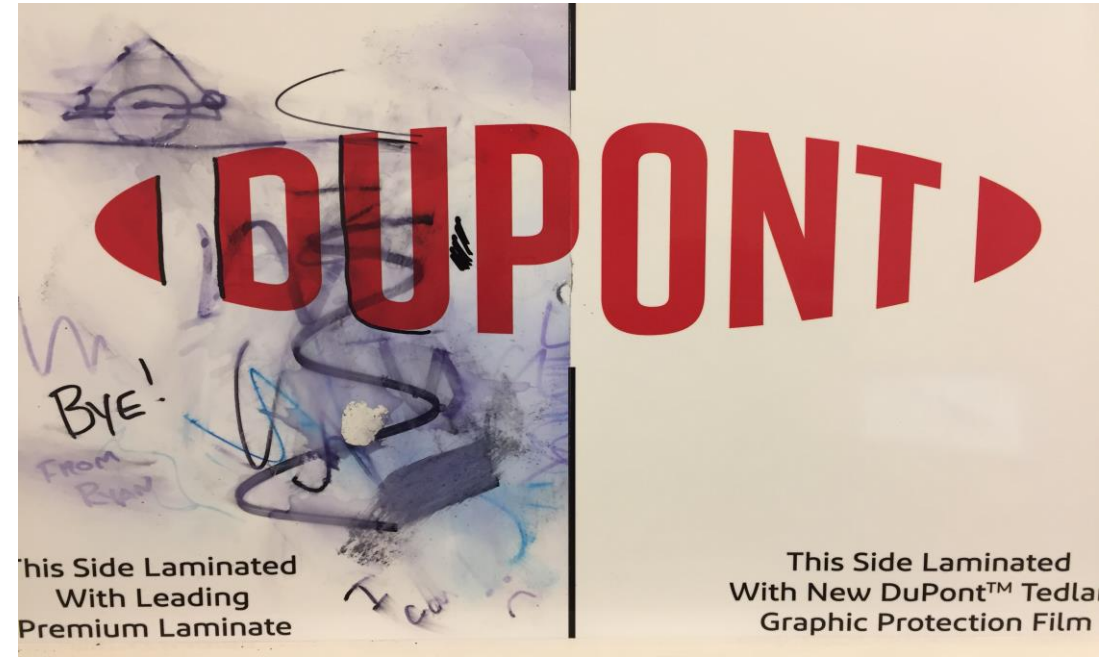
# Graphic Signage Applications

Tedlar® Graphic Film (TGP) Film

Is the ideal surfacing material for graffiti resistance and protection against fading and corrosion.

Why Tedlar® TGP Film?

- Weather/UV resistant up to 10 years
- Outstanding graffiti resistance
- Long-term protection of brand message
- Impervious to harsh chemicals and atmospheric pollution





# Other Applications

## Gas Sample Bags:

Resistance to gas permeation along with chemical inertness to maintain sample integrity



## Composite Release:

High-performance release for various compounds including fiber-reinforced polymer (C/FRP)



## Transfer Printing:

Excellent printability and release from rubber and metal



# Tedlar® PVF Film Applications Circa 1963

**WEATHERPROOF SIGN**  
*face is DuPont Tedlar PVF film*



Top surface of the company's dual transfer, sign and transfer now is DuPont's polyvinyl-fluoride plastic film trademarked Tedlar. These signs have a pressure-sensitive adhesive to apply without water as illustrated. They are made to specification for product identification. Back contains pressure-sensitive labels. Available to order in color printing, embossed background under the smooth top surface, reflective and ultraviolet-absorptive materials.

The plastic top surface has a useful service life of years or more. Weather resistance is its prime characteristic. Properties previously described IEN-127-63 include resistance to cracking, creasing, staining and chalking. It is resistant to chemicals, fumes and solvents. It is tough, abrasion resistant and flexible over a temperature range of -100 to +125 degrees F.

Source: DuPont Chemicals Development Company  
 1235 Rio Vista Ave., Dept. IEN, Los Angeles 23, Ca.  
 (Approved in February, 1963, issue)

**INSULATION JACKET**  
*surfaced with DuPont Tedlar PVF film*



Adhesive felt, covered with a film of Tedlar polyvinyl fluoride, forms new sheet insulation on pipes, tanks and other boiler joints. The adhesive An adhesive adhesive bonds felt. Exceptional resistance to weathering, vapors and ultraviolet light. The material also is resistant to acids, alkalis and other chemicals. Available in 30 and 60 mil thicknesses. It is available in rolls or sheets. Source: DuPont Chemicals Development Company, 1235 Rio Vista Ave., Dept. IEN, Los Angeles 23, Ca.

**ROOF MATERIAL**  
*surfaced with DuPont Tedlar PVF film*



Adhesive felt, covered with a film of Tedlar polyvinyl fluoride, forms new prefinished roofing material. An adhesive adhesive bonds the PVF film to the substrate felt. The combination is a factory-made finished roofing with life expectancy of 30 years or more. It carries the designation of T/MA-200. Application is by standard hot or cold adhesive on a suitable or non-suitable flat or steep-pitch roof deck. The material is available in 30 and 60 mil thicknesses. It is available in rolls or sheets. Source: DuPont Chemicals Development Company, 1235 Rio Vista Ave., Dept. IEN, Los Angeles 23, Ca.

**METAL BUILDING**  
*surfaced with DuPont Tedlar PVF film*



Finish on metal panels of the company's factory-fabricated industrial buildings now can be specified as Tedlar polyvinyl fluoride. It is a chemically inert film that is laminated to the metal surface by a special adhesive. Estimated life is 25 or more years for the weather-resistant film so that practically no maintenance is required. It has three to four times the weathering resistance of other materials. It is available in 30 and 60 mil thicknesses. Source: DuPont Chemicals Development Company, 1235 Rio Vista Ave., Dept. IEN, Los Angeles 23, Ca.

**PREFINISHED ALUMINUM**  
*surfaced with DuPont Tedlar PVF film*



Roll stock and cut-to-length pieces are offered in alloys 3003 and 3003 prefinished with Tedlar polyvinyl fluoride adhered permanently in place. This surface film has exceptional resistance to weathering and chemical attack. It is superior over a considerable temperature range, withstands forming operations on the aluminum sheet, makes any finishing operations unnecessary for joints.

Colors are white, light gray and light green with medium gloss. Tedlar thickness is 2 mils nominal. Metal thickness at present is 0.024 and 0.032 inch. Width at present is 3 to 60 inches. Length at present is 10 to 60 inches.

Source: United States Plywood Corporation, 35 W. 44th St., Dept. IEN, New York 36, N. Y.

**WEATHER RESISTANT TAPE**  
*based upon DuPont Tedlar PVF film*



Scotch tape Y-9057 consists of Tedlar polyvinyl fluoride film and a pressure-sensitive adhesive backing. It seals crevices, joints and separated portions of building and construction surfaces. The new tape adheres to metal, asbestos-cement and overlaid plywood surfaces as well as to Tedlar-surface products. It remains tough and flexible over a temperature range from -60 to +300 deg. F. Resistance to weathering and chemical attack is excellent. Thickness is 3.5 mils, tensile strength is 22 lb. per in. of width, adhesion strength is 47 oz. per in., yield point for conformability is 17 lb. per inch. Color is white or gray. Application is in standard dispensers (illustrated) which the company can supply.

Source: Minnesota Mining & Mfg. Corporation  
 2501 Hudson Road, Dept. IEN, St. Paul 19, Minn.

**FIBERGLASS PANELS**  
*surfaced with DuPont Tedlar PVF film*



Improved design of the company's COR-Durox glass-fiber-reinforced plastic panel now is available with a surface of Tedlar polyvinyl fluoride film. Excellent resistance to weathering, strong chemical-resistant surface that sheds dirt and resists creasing. Flexibility and fire resistance over an extended temperature range, are features. The material is supplied in plain and cross-corrugated roll forms. Width is to 60 in. and length is in excess of 100 feet. Panels also are available.

Source: Fiber Glass Plastic, Inc.  
 7395 N. W. 34th Ct., Dept. IEN, Miami 47, Fla.

**PLYWOOD SIDING**  
*surfaced with DuPont Tedlar PVF film*



No painting for a minimum of 15 years is preliminary guarantee on new prefinished plywood siding, primarily for residential buildings. Basis of the guarantee is the surface film of Tedlar polyvinyl fluoride, bonded to Walswood plywood with a special adhesive. Properties include excellent resistance to sunlight and weathering, superior resistance to abrasion and impact, strength and ability to clean readily. Four fade-resistant colors are white, gray, green and yellow. The new building material will be produced in standard dimensions.

Source: United States Plywood Corporation  
 35 W. 44th St., Dept. IEN, New York 36, N. Y.

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 Product Design, Mr. \_\_\_\_\_  
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January 1963

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