



# DPF 8000 Vinyl Film

## Engineering Grade Digital Print Pressure Sensitive Film

DPF 8000 is a 3.5-mil (90 micron) satin white, high-tensile, polyvinyl chloride film with aggressive, permanent pressure-sensitive adhesive. Designed for indoor and outdoor graphics, DPF 8000 is made of 100% polymeric face stock with a special lay-flat liner. The special adhesive system is designed to stick to “hard-to-stick” surfaces and low energy surfaces. DPF 8000 is designed to meet the marking requirements and specifications of the transportation, vending, and automotive industries. The film conforms well to flat surfaces with slight contours when processed and applied according to Arlon recommendations. DPF 8000 is rated for outdoor durability up to 7 years\* (unprinted). Printed durability is dependent on the ink system used.

## APPLICATIONS & FEATURES

- Digital printing with a wide variety of direct print systems
- Polyolefin plastic surfaces such as polyethylene, polypropylene, polyurethane, etc.
- Application in cold temperature environments
- Slightly textured and/or low-energy surfaces

## PERFORMANCE & PHYSICAL DATA

PROPERTY	TEST METHODS	TYPICAL VALUE	
<b>SURFACE FINISH</b>	Gloss Meter 60° Reflection	40-60%	
<b>THICKNESS (INCLUDING ADHESIVE)</b>	Micrometer, Federal Bench Type	3.5-mil (90 micron)	
<b>TENSILE STRENGTH</b>	Tensile Tester with 2-in (51 mm) jaw separation; crosshead speed of 12 in/min. (5.1 mm/s), web direction	13.0 lb/in width	2.3 kg/cm width
<b>ELONGATION</b>	Instron Tensile Tester as above	100%	
<b>SHELF LIFE</b>	Free from excessive moisture, temperature, direct sunlight	1 year from factory shipment	
<b>APPLICATION TEMPERATURE RANGE</b>	On clean, dry substrate	30°F to 80°F optimum	-1°C to 27°C optimum
<b>SERVICE TEMPERATURE RANGE</b>	On clean, dry substrate	-65°F to 225°F	-54°C to 107°C
<b>DIMENSIONAL STABILITY</b>	158°F (70°C), 48 hours	≥50-mils	≥1.27 mm
<b>PEEL ADHESION</b>	PSTC-1, 15 min, RT 70°F (21°C)	5.0 lbs/in	0.89 kg/cm
<b>LINER RELEASE</b>	TLMI Release at 90°, 300 in/min (760 cm/min)	30 g/2 in	12 g/cm

Standard Terms & Conditions Apply

Effective Date 10/11

\* Outdoor durability for vertical masonry surfaces rated up to 6 months.

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## PREPARATION & INSTALLATION

### General

DPF 8000 owes its very high bond to the softness of the adhesive. The trade off for high tack and adhesion is greater than normal shrinkage. When decorating DPF 8000 with screen or digital printing the solvent involved will penetrate both the vinyl and

adhesive at the time of printing. If the printing solvents aren't completely removed before installation the resultant graphic will show very high shrinkage and edge curl. When printing this product be vigilant about drying the finished decal completely before laminating, top coating or installing.

### Concrete, Masonry and Tile

The surface should be entirely dust free: high pressure TSP/water wash is the easiest method. The surface must be sealed with a complete coat of paint or concrete sealer and allowed to dry. If the surface is not sealed there must be no loose paint, grit or chalk present.

### Sealing porous surfaces creates three benefits:

- Moisture cannot wick to the adhesive surface from within the matrix of the wall.
- Dust, due to ablation, cannot develop under the vinyl.
- Removal steps are much easier as the adhesive will remove more cleanly, and if any adhesive remains, the surface will be cleaned of residue more easily.

The surface temperature must be above 50°F. To assure highest adhesion the

graphics will benefit from a final installation pass using a soft roller and heat source in combination. The film should be heated to a point of softening. Wait until the vinyl becomes "tack-free" and then roll the film tightly into the texture of the wall.

### Plastic

These surfaces benefit from slightly roughening with sand paper before installation or surface oxidation with flame. For many polyolefinic surfaces, once the oily skin of the plastic is modified bond will improve dramatically.

## REMOVAL

Addition of heat during removal will make the process much cleaner and faster. Where possible allow the surface to reach 80°F/27°C or more before removing the film. Where ambient temperature is not that high use either a very "soft" flame type torch or heat gun to bring the temperature up. Arlon recommends getting the film and under laying adhesive above 100°F/38°C.

Remove the film in a continuous smooth motion at a shallow angle for the fastest separation. Where it is practical, two people on the removal make the job go far faster than using just one. With one person working the heating unit in front of the second person who is peeling film, the job proceeds at a uniform and consistent pace. Where only one person is working there will be constant starting and stopping in addition to the problems of the heat being very inconsistent.

## SPECIAL CONSIDERATIONS

Because of the porous nature of all masonry and its general roughness Arlon does expect water, snow or ice to seep between the film and wall and collect on the upper edges of the applied graphic. For this reason an edge seal is recommended on applications that have very rough surfaces. Rough surfaces may not carry the standard warranties.

Standard warranty applies to vertical applications only. Vertical is defined as +/- 10° from the vertical. Non-vertical applications are not warranted for this product.

## **TERMS & CONDITIONS**

*The following is made in lieu of all warranties expressed or implied:*

All statements, technical information and recommendations published by Arlon relating to Arlon products are based on tests believed to be reliable and within the accuracy of the equipment used to obtain the specific values. Their accuracy or completeness is not guaranteed and Arlon makes no warranty with regard thereto. Seller's and manufacturer's only responsibility shall be to replace any quantity of the product proved defective. Seller and manufacturer shall not be liable for injury, loss or damage, direct or consequential, arising out of use or the inability to use the product. Nor shall seller or manufacturer be liable for any costs or expenses incurred in the processing or printing on the product. Before using, user shall determine the suitability of the product for its intended use. User assumes all risk and liability of every nature in connection therewith. No statements or recommendations other than those contained in the technical information published by Arlon shall have force or effect unless contained in an agreement manually signed by the officers of seller and manufacturer.

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