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Version #2 (04/21)

Approved by A. S.

Delicate product “HANDLE WITH CARE”!

## Product

PermaTrans® PUV3100

## PERMACOLOR

The **PERMACOLOR** system is a series of pressure sensitive products for mounting and over laminating utilized in the imaging industry. Pressure sensitive **PERMACOLOR** provides fast, efficient processing through cold roll lamination techniques without the need for heat, drying or messy coating operations.

## Product Description

**PermaTrans® PUV3100** is a thin, optically clear polyester film coated on both sides with an optically clear permanent acrylic pressure sensitive adhesive. A clear polyester release liner protects each side, permits complete visual inspection of the product, easy liner removal and a distortion-free adhesive surface.

This optically clear, two-side coated film is designed for face- and back-mounting transparencies to glass, acrylic, polycarbonate, Plexiglas® and other clear or transparent substrates. Although it is designed primarily for mounting transparencies and back lighted applications, **PUV3100** can be used wherever superior clarity and smoothness are required, even over UV inkjet prints.

## Physical Properties

Property	Typical Values	Test Method
<b>Thickness inches (mil)</b>		ASTM-D645
Carrier plus adhesive	.00445 (4.45)	
Total product	.00645 (6.45)	
<b>Rolling Ball Tack (cm)</b>	<b>Image Surface    Substrate Side</b>	J. Dow Methods
	11                    11	
<b>Peel Adhesion lb/in. (N/25 mm)</b>		FTM-1 (ASTM D903)
Glass - 30 min.	4.84 (21.3)    4.77 (21.0)	
- 24 hrs.	4.77 (21.0)    4.77 (21.0)	
<b>Tensile Strength (N/25 mm)</b>	51.36 (226) MD    64.54 (284) CD	Machine Direction
<b>Tensile Expansion Rate</b>	147% MD            116% CD	Cross Direction
<b>Temperature Range</b>		
Application for best results:	50° to 104°F (10° - 40°C)	
End Use:	-22° to 176°F (-30° to 100°C)	
<b>Optical Properties</b>		
Ultraviolet ray transmission	2.3%	
Visible Light Transmission	90.7%	
<b>Adhesive pH</b>	5.0	TAPP-49-2

## Shelf Life

One year when stored at 50-86°F (10-30°C) and 70% relative humidity or less. Note: Mactac recommends that rolls be stored on end or suspended from the core.

## Durability

**PUV3100** will give satisfactory performance up to 2 years outdoor. Indoor durability can be up to 20 years under standard conditions and with high quality printing inks. The durability relates only to the mounting film. The durability of the image is based solely on the quality and durability of the ink.

## Chemical Resistance

**PUV3100** is resistant to water, detergents, alcohol and some aliphatic solvents. Not recommended for uses with ketones, esters, aromatic and chlorinated hydrocarbons.

## Limitations

- 1) **The user is responsible for determining the product's suitability, including adhesion and if needed, removal characteristics when used in applications other than listed specifically in this Performance Guide.**
- 2) **If there are any questions about applications, please contact your Mactac sales representative to discuss your requirements for recommendations.**
- 3) **If this is a printed Performance Guide it is an uncontrolled document. Please check the Mactac website for the latest, most up-to-date version**

## Recommendations

1. This product is an optically clear, two-sided face (2<sup>nd</sup> surface) mounting film that is delicate and **must be handled with care**. Because it is an optically clear adhesive, poor handling such as: bumps, bangs, smacks, rolling across tables, etc. can cause bad effects including wrinkles, adhesive distortions, release liner tunneling and telescoping rolls to occur.
2. Where exposure to chemicals, solvents or high-pressure wash is anticipated, Mactac recommends sealing the edges with varnish, silicone or other sealant to prevent penetration by these liquids.
3. Prints should not be applied onto dusty, dirty, oily or oxidized surfaces.
4. The mounting board must be properly prepared prior to mounting the image. This may include wiping with alcohol, light sanding or surface sealing depending on the board. Contact your board supplier for their recommendation.
5. Mactac's pressure sensitive mounting films are intended for "Cold Roll Lamination" (50°F - 104°F). Overlaminates may result in curl or have other detrimental effects on the finished product.
6. Whenever possible, always test first to ensure end-use capability. When using **PUV3100** on polycarbonate, polystyrene, polymethyl-methacrylate substrates, we recommend conducting compatibility tests in normal use conditions. These types of panels tend to outgas when exposed to elevated temperatures, creating bubbles and/or tunnels between the panels and the mounting film.

**CALL 1-800-321-8834 for additional product information**

**IMPORTANT NOTICE:** The information given and the recommendations made herein are based on our research and are believed to be accurate, but no guarantee of their accuracy or completeness is made. In every case, user shall determine before using any product in full scale production, or in any way, whether such product is suitable for user's intended use for their particular purpose under their own operating conditions. User assumes all risk and liability whatsoever in connection with their use of any product. The products discussed herein are sold without any warranty as to merchantability or fitness for a particular purpose, or any other warranty, express or implied. No representative of ours has any authority to waive or change the foregoing provisions, and no statement or recommendation not contained herein shall have any force of effect unless in an agreement signed by the officers of seller and manufacturer. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent without authority from the owner of the patent. The following is made in lieu of all warranties, express or implied: Seller's and manufacturer's only obligation shall be to replace or credit such quantity of the product proved to be defective at its discretion.

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