PERMA COLOUR INC.
MANUFACTURER OF SILKSCREEN INKS AND SERVICES

UV-PE/PP INK SERIES

PROPERTIES

The UV-PE/PP ink series is characterized by a high visual impact glossy finish. It has high flexibility and excellent adhesion on polyethylene or polypropylene with a treatment level of 46-48 dynes/cm^2. This makes it suitable for screen-printing on polyethylene/polypropylene bottles and sheets. This ink has a fast cure rate, resulting in a high production yield, while also being resistant to a wide range of substances, such as water, alcohol, and other chemicals.

PRODUCT RANGE*

Product Name	Product Code	Product Name	Product Code
UV PE/PP Varnish	UVES - 000	Magenta R	UVPE - 302
UV Gloss Varnish	UVES - 001	Blue	UVPE - 400
White	UVPE - 100	Violet	UVPE - 401
Chrome Yellow	UVPE - 200	Gold	UVPE - 603
Lemon Yellow	UVPE - 201	Silver	UVPE - 604
Primrose Yellow	UVPE - 203	Orange	UVPE - 700
Dark Red	UVPE - 300	Green	UVPE - 800
Bright Red	UVPE - 301	Dark Green	UVPE - 801
UV Reducer	UVR- 200		

* The colors listed are the basic ink shades only. Customized colors may be provided upon request.

APPLICATION AND COMPATIBLE MATERIALS

UV-PE/PP ink is a single pack ultraviolet curable ink, which is especially made for printing on treated polyethylene/polypropylene based materials. Untreated polyethylene/polypropylene has an inert surface which makes it unsuitable for ink adhesion. Flame treatment or corona treatment is required to activate the polyethylene/polypropylene surface and make it suitable for ink reception. To ensure best results, it is recommended to use freshly treated containers. With proper curing, this ink has excellent adhesion, while being resistant to a wide range of solvents and chemicals.

This ink will cure using all commercially available UV dryers. The cure speed is dependent on exposure time, line speed, wattage output, ink deposit, and UV intensity.

SCREEN PRINTING PROCEDURE AND CLEANING

Varying mesh sizes may be used for different applications:

- For printing sharp and fine detailed objects, a fabric with 165 threads/inches is recommended.
- For high opacity printing, 145 threads/inches fabric must be used, given that it is a solvent resistant stencil.

To ensure best possible results:

- The screen mesh must be stretched with high tension to prevent occurrence of off-shoot.
- The squeegee must be 70 to 75 degrees shore and well-sharpened.
- The frame must be off-contact in order to achieve a well-detailed printing.

For cleaning:

- Use solvent SA-1 for cleaning the screen mesh.
- Clean the screen after every use to avoid blockage of ink.
- For dilution, UVR-200 may be added, but only in minimal proportions.

STORAGE

UV-PE/PP ink must be stored in a dry and well-maintained environment, with the temperature not exceeding 25 to 30 degrees Celsius. Direct or prolonged exposure of the ink to light sources with UV contents must be avoided. The product has a guaranteed shelf-life of up to 6 months from the date of manufacture, considering it remains undiluted in its original container.

HEALTH AND SAFETY

The product is considered non-hazardous when used in a safe working environment, following proper handling protocols and having a well-ventilated working area. For safety, ensure that the guidelines given in the Materials Safety Data Sheet (MSDS) is followed.

WARNING

The manufacturer, Perma Colour Inc., guarantees the quality of the product. All the stated information is given in good faith. The technical instructions given may serve as a guide, but the company does not guarantee nor promise specific results. The obtained results vary on other factors, including the operator's procedures and handling of the product. The company's responsibility is limited solely to the exchange of the ink or varnish product. Furthermore, in the use of the product for substrates not mentioned in this guide, it is recommended to conduct small-scale testing before mass production to ensure the compatibility of the ink.