

PET Ink 3004 Solvent-based Ink

Technical Data Sheet

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Smiley 3004 is designed for printing onto membrane switch with non-treated PET material. This ink series has good adherence to treated and untreated PET film. It has excellent resistance to weather.

- Semi Matt finish
- Fine and detailed prints
- Excellent printing properties
- Excellent adhesion
- Resistant to chemicals, alcohol and petrol
- Excellent weather resistance
- Excellent color stability
- Resistant to scratch and abrasion

Substrates: Treated and Untreated PET Film and Label

USER INFORMATION

Mesh: 100-40 Mesh/cm monofilament polyester is recommended for most applications.

Stencil: Solvent resistant emulsions
Recommended:
6060-209 Dual Cure Graphic Emulsion

Squeegee: 75-80 durometer hardness polyurethane squeegees.

Coverage: 35 M²/Kilo (100 Mesh/cm) depending upon ink deposit.

Pre-Production Test: Always pretest adhesion and application before each production run, as there can often be significant differences between substrates from different manufacturers and even between different batches of substrates. Pretest to determine optimum printing performance for a particular set of ink, substrate, screen, press, and drying variables/conditions.

Printing: Maintain ink temperature at 65°-90°F (18°-32°C) for optimum print drying performance. Lower temperatures increase the ink viscosity, impairing both flow and drying. Elevated temperatures lower the ink viscosity, reducing print definition and film thickness.

Drying / Curing: Smiley 3004 uses slow dry chemical, therefore it is recommended to dry in an oven. It can also be cured at 60°C for 20-30 minutes.

- Maximum adhesion and chemical resistant is achieved after 5-7days
- Drying and adhesion of ink is affected by:-
 - Drying temperature
 - Drying time
 - Grade and type of the substrate
 - Treatment degree of substrate

Thinning and Wash-up: Reducer: Use 4000-001 Reducer to reduce the viscosity of the ink. Add up to 10% by weight.
Retarder: Use 4030-001 Retarder to slow down the drying time. Add up to 10-15% by weight.
Wash-up: Use 4050-003 Screen Wash and Cleaner.

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GENERAL INFORMATION

Handling & Storage:

- **Smiley 3004** is formulated free of lead and other heavy metals
- It is recommended to wear suitable protective gear such as glasses and gloves. Take particular care to avoid splashes into the eyes and skin contact. If the ink comes in contact with skin, wash with soap and plenty of water. If ink comes in contact with eyes, wash with plenty of water and consult with a doctor.
- Comprehensive information on the safety and handling of Smiley 3004 screen inks and thinners is given in the appropriate Smiley Material Safety Data Sheet (MSDS), which are available upon request.
- Store tightly covered at temperatures between (18° - 25°C). Can be stored for 1 year under these conditions.
- Tins should be kept tightly closed when not in use.

Environmental Information:

- Do not contain ozone depleting chemicals.
- **PET Ink 3004** should be disposed properly (see MSDS) and in accordance to local regulations to avoid contamination.

Recommended Stencil Making Products:

- Screen Preparation
 - Mesh Preparation 6050-300 – for abrasion
 - Mesh Degreaser 6050-200 – for degreasing
- Screen Emulsion
 - Dual Cure Graphic Emulsion 6060-209
- Screen Cleaning
 - Ghost Remover 6070-100
 - Stain Remover 6070-001
- Screen Reclaiming
 - Stripping Powder 6070-200

PRODUCT OFFERING:

Packaging:

3004 is available in 1 Kilo, 5 Kilos and 20 Kilos containers.

ADDITIONAL INFORMATION

For additional product information, please visit our website at <http://www.smiley.co.th>. For further information, please contact SPS personnel at medhi@smiley.co.th.

Thank you for choosing **SMILEY**.

Smiley Printing Solution Co., Ltd. (SPS), abides by the quality of this product. The information and recommendations that embody this Technical Data Sheet along with the technical advice are based solely on our knowledge and therefore confident to be precise. This product has been specifically formulated for screen printing. SPS cannot guarantee the precision for other possible application for the reason that manufacturing methods and other materials vary. Any liability amalgamated with the use and application of these products, users are the sole bearer of responsibility for choosing appropriate product for end-users' requirement. This Technical Data Sheet is provided for the technical purpose in the usage of this product and users are expected to follow current recommendation.

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