

44000 Series Fast Dry Gloss Vinyl Screen Inks

Code Ref: D412

technical information and application instructions

Substrates Pressure-sensitive vinyl films, vinyl coated products. Since there are many hundreds of different plastic surfaces, it is the printer's responsibility to pre-test the inks prior to engaging in a production run. Ideal for thermo-die cutting.

Note: Pre-test for adhesion prior to use in production.

End Uses Formulated for screen printing on a wide variety of vinyl and vinyl coated surfaces, typically used for self-adhesive stickers, signage, vehicle signage, PVC decoration.

Product Information

Ink will form a positive bond with substrates and produce a high gloss finish which may be vacuum formed. Prints will air-dry within 5-10 minutes and will jet-dry in seconds at low temperatures. The inks are non-blocking and prints may be stacked once totally dry (see special note 5). Colours can be formulated for extended outdoor exposure on request. Suitable for thermo-diecutting.

Application Information

While technical information and advice on the use of this product is provided in good faith, the User bears sole responsibility for selecting the appropriate product for their end-use requirements. See full disclaimer at end of document.

Mesh	90T and finer meshes are recommended.
Stencil	All direct photo emulsions, photo stencil films and hand cut stencil films that are solvent resistant.
Squeegee	70 to 80 durometer polyurethane blades as well as triple durometer blades that produce an even ink deposit.
Coverage	30-45 Square meter per 1kg (90T-120T mesh).
Drying	44000 Series will air-dry within 2 to 5 minutes, without drying in the screen. The ink will jet-dry at very low temperatures 32oC – 50oC in seconds. These inks will not dry in the screen under normal working conditions and will re-dissolve after extended printing breaks with a few squeegee passes.
Thinners	The inks must be thinned with approximately 10-20% of N665 S303 44-180 Thinners or N665 S307 44-182 Retarder or Universal Retarder – D564-S064.
Clean Up	N660-S344 Screen wash.

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Ink Handling

All personnel mixing and handling inks must wear gloves and eye protection. Clean up spills immediately. If ink does come in contact with skin, wipe off with a clean, dry, absorbent cloth (do not use solvent or thinner). Wash and rinse affected area with soap and water. Consult the 44000 Series SDS for further instructions and warnings.

Storage

Store tightly covered at temperatures between 15°C - 32°C. Ink taken from the press should not be returned to the original container. Store separately to avoid contaminating unused ink. Shelf life for unopened cans of ink is 5 years from date of manufacture. Stir well before use.

Special Notes

1. 44000 Inks are not suitable for rigid vinyl's (bottle printing) as these inks tend to feather badly due to static build up. Plastivac Series is recommended for this application.
2. Whilst 44000 Series, HT Series and GV Series are used on the same substrates, the resins used in these formulations are very different. Do not interblend 44000 Series, HT Series and GV Series inks, as this will compromise the properties of each ink and could cause resin kick-out.
3. It is possible to overprint GV with 44000 Series or HT Series or vice versa - however, adequate pre-testing is essential.
4. 44000 Series inks are based on less aggressive solvents than GV Series. Before printing on "Banner" type vinyl's, check for adhesion after 24 hours with the following test:
 - Fold substrate through 180°, ink to ink and ensure a definite crease by going over the fold five (5) times and apply adhesive tape to the fold line. There should be no ink removal. If ink removal is apparent, repeat the test after wiping the surface with Iso Propyl Alcohol or Methylated Spirits before printing.
 - If ink adhesion is acceptable after wiping with alcohol, this indicates that Plasticizer and/or other surface-active agents have migrated to the surface of the vinyl, however, adhesion on ageing, even if the material is alcohol wiped, is likely to deteriorate.
 - If wiping the substrate is not practical in production, repeat the test using GV inks or our newer development – HT Series which is our preferred choice for Banner & Tablecloth grades of PVC.
5. Some PVC's contain large amounts of monomeric plasticizer that may migrate to the surface and cause ink softening, which could lead to blocking. Such materials may need to be interleaved with paper or dusted with powder.

It is important to check this before production – fold print ink to ink – place under a heavy weight and leave in a warm oven @ 40°C for 24 hours then check for blocking.

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Please proof this ink, reduced to the consistency you wish to adopt, on a sample of the ACTUAL SUBSTRATE you will be printing BEFORE starting a production run.

Give the proof 24 hours to post cure then check for: Abrasion resistance, adhesion, print appearance and correctness of colour. The adequacy of this ink in these properties cannot be fully established on laboratory equipment on a small scale.

Keep away from heat and open flame. Use with adequate ventilation. Avoid prolonged or repeated contact with skin. Avoid prolonged breathing of vapour or spray mist. Keep container closed when not in use.

GL stands behind the quality of this product. GL cannot, however, guarantee the finished results because GL exercises no control over individual operating conditions and production procedures. While technical information and advice on the use of this product is provided in good faith, the User bears sole responsibility for selecting the appropriate product for their end-use requirements. Users are also responsible for testing to determine that our product will perform as expected during the printed item's entire life cycle from printing, post-print processing, and shipment to end-use. This product has been specially formulated for screen printing, and it has not been tested for application by any other method. Any liability associated with the use of this product is limited to the value of the product purchased from GL.

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Last date amended: 7 February 2023