



TECHNICAL INFORMATION AND APPLICATION INSTRUCTIONS

BIOCURE TWO-PACK CURING SCREEN INKS CODE REF: 482/487/488

SUBSTRATES: This is a reactive acid catalyst system. Inks are suitable for printing on treated

polyethylene containers, e.g. for detergents, oils and household cleaners.

END USES When the polyethylene used for the containers contains anti-static agents (amines), this

could lead to loss of adhesion on aging. Prints have good break fluid and alcohol

resistance.

APPLICATION INFORMATION

MESH 90T to 120T mesh recommended.

STENCIL All direct photoemulsions, photostencils and hand cut stencil films that are solvent resistant.

SQUEEGEE Sharp edge 70-80 durometre polyurethane blades as well as triple durometre blades that

produce an even ink deposit.

COVERAGE Approximately 20-25sq. metres per kg of ink – 90T mesh.

PRINTING Biocure Two-Pack Curing Screen Inks dry to a gloss finish.

DRYING 90 seconds at 80°C. Air dry 20 – 40 minutes. Full curing is only achieved after 24 hours.

NB: Overprinting problems can occur if inks are over-cured.



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CLEARS / EXTENDERS / ADDITIVES

THINNER Use Biocure Reducer N665 S280

RETARDER Use Biocure Retarder N665 S282

EXTENDER Biocure Clear can be added to reduce strength (N482 S256) or as a clear base for metallic colours (Refer Metallic Colours Mixing Guidelines later in this TDS).

MIXING RATIO WITH CATALYST It is recommended that the ink is thinned first before the catalyst is added.

For multi-trip bottles, the recommended ratios are:

White	100	Colours & Clear 100	
Thinner	6	Thinner 8-15	
Catalyst_	13_	Catalyst <u>14</u>	

These high levels of catalyst are necessary to achieve maximum resistance to both product and bottle washing.

For single trip bottles, 5-7% catalyst should be adequate to achieve good adhesion.

Only mix small quantities of ink at one time – at the multi-trip catalyst level, the pot life is 8-10 hours, at lower catalyst levels this will increase.

Never put back any catalysed ink in the original tin – all the ink will eventually go solid.

N482 S242 - For Biocure, the mixing ratio is 10 parts ink to 1 part catalyst, however, in cases where 4 or 5 colours are printed over a white, the catalyst ratio should be as follows:

1st Colour	14 parts ink:	1 part catalyst
2nd Colour	13 parts ink:	1 part catalyst
3rd Colour	12 parts ink:	1 part catalyst
4th Colour	11 parts ink:	1 part catalyst
5th Colour	10 parts ink:	1 part catalyst

Note: N482 S242 was previously coded J482 B064 or D482 A019.

OPACITY Good, unless transparent colours are requested.

MIXING/OVER-PRINT CLEAR D424 A004 Mixing/Overprint Clear may be used to reduce colour strength or as a metallic mixing varnish. (See metallic colours).

METALLIC COLOURS

Metallic pigments may be added to the inks as a component of a colour match or to D424A004 Mixing/Overprint Clear. Due to possible limited shelf life, only mix quantities of metallic ink needed for immediate use. Leafing pigments may show incompatibility to the ink. Excessive amounts of metallic powder will degrade adhesion and the overall performance of the printed ink.

Recommended rates: Metallic Powders

Silver (Aluminium) 8% by weight 80gms powder to 1kg Clear Gold (Bronze) 15-20% by weight 150-200gms powder to 1kg Clear

ADHESION TESTING

Cross hatch tape test – use a cross hatch tool or sharp knife to cut through the ink film only, apply 3M #600 clear tape on cut area, rub down and rip off. Ink should only come off from the actual cut areas.

Fingernail scratch test – thoroughly dried ink will resist scratching.

CLEAN UP

Use N660 S344 Universal Screen Wash or N615 IMS 201 Premium Graphic Screen Wash for cleaning ink from the screen.

GENERAL GUIDELINES

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). Proceed to wash and rinse affected area with soap and water. Consult the Biocure Material Safety Data Sheet 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.



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 dry out 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.

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.

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.

LAST DATE AMENDED: 12 October 2006