



## SOVEREIGN PLUS

(Prefix MH&MHS)

**DESCRIPTION** The Sovereign Plus ink system is intended for gravure/flexo reverse print and lamination. This system gives high heat resistance on co-extruded and uncoated treated polyolefin substrates e.g. OPP and polythene. This can be converted to be suitable for surface printing (Sovereign SP system) with the use of an additive MXA 29437 at an addition level of 7%.

**TYPICAL PROPERTIES** Heat resistance to 180°C.  
Good grease and oil resistance.  
Suitable for lamination - bond strength will depend on adhesive used and we recommend testing under laboratory conditions before printing. (Lamination of Sovereign Plus inks on Innovia Rayoface with Henkel Liofol UR 7725-21 / Hardener UR 6062-21 – 170 / 100 parts, gave a bond strength in excess of 380 g/25mm after storage for 1 hour at 40°C. Once adhesive was fully cured the bond strength could not be measured, as there was film tear.)

**SUBSTRATES** Treated polythene, polypropylenes and polyester films. Care needs to be taken on polythenes due to the variable compositions available as some films can have detrimental effects on the ink system. Printing on tubing is particularly prone to risk for this reason and Puma/Panther systems may be more appropriate.

**REDUCERS** Normal = meths/ethyl acetate 3/1 to 6/1  
Slow = meths/n-p acetate 3/1 to 6/1  
N.B. retarders such as ethoxy propanol or methoxy propanol can be used but care should be taken to avoid set-off in the reel, blocking, and unacceptable retained solvent/odour.

**COLOUR RANGE** Available in a wide range of bright colours that demonstrate good light fastness properties although care should be taken to ensure that the ink being used is suitable for the end use intended as prolonged exposure to light will necessitate the selection of special pigments. Colours are matched under D50 lighting.

**QUALITY ASSURANCE** Products with the prefix and product name specified above are Quality Controlled to Mirage Inks Test Specification No 51 as described in the test manual. Details of all tests are available on request from our technical department.

The information given above is supplied as a guide only with the properties achieved under laboratory conditions. Mirage Inks Limited strongly recommend that you satisfy yourself as to the suitability of the product with trials. Please consult our laboratory to discuss any different requirement. As particular conditions of use and variations in quality of materials and substrates being used are outside our control, it is therefore not possible to guarantee the performance of our products.

Products supplied under this ink name / prefix, are best used within a six month period from the date of manufacture (as specified on the product label). In-line with Mirage Inks Ltd ISO 9001 procedures, retained batch samples for any product supplied under this ink name / prefix, are retained & stored at room temperature for a period of six months from the date of manufacture.

Should the product be used outside of this six month period, Mirage Inks Ltd. have no reference sample for comparative & test purposes, so cannot investigate or be held responsible for any print related problems.

Mirage Inks Ltd will not accept liability for any claim arising as a consequence of a laboratory colour matching being offered to our customer in good faith, and then subsequently Mirage's customer failing to obtain approval from their customer prior to printing / production.