

PRODUCT DATA SHEET

GRAVURE POLY

83232 is a range of inks designed for gravure printing of flexible films (including coated) for subsequent adhesive lamination.

Laminates printed with **83232** are used for packaging a wide range of products. The low odour and solvent retention characteristics make it particularly suited to the packaging of food products such as coffee, biscuits, snack foods, cooked foods, confectionery, etc.

83232 has the advantage of being based on novel chemistry, with performances equal or better in certain cases to INKS based on PVB or vinyl, that are normally used.

83232 does not contain pigments based on heavy metals.

PROPERTIES

- ? Good printability and tonal reproduction, at higher print speeds.
- ? Good lamination bond strength: superior to 300g/15 mm for most structures based on polypropylene (OPP), such as OPP/PE, OPP/OPP.
- ? Good lamination bond strength on polyester (PET) structures with corona or chemical treated polyester films.
- ? Also suitable for polypropylene combined with metallized films and for bi-oriented polyamide (OPA) based structures.
- ? Low solvent retention and low odour for 200% printed coverage under normal drying conditions.

RECOMMENDATIONS FOR USAGE

A sufficient temperature is required to remove solvents and to key **83232** inks, but this can be a function of substrate, ink weight and press conditions. Please discuss with our technical service personnel before ordering.

In the case of special applications a preliminary test with the product is required to check product resistance and end use utilization.

SUBSTRATES

83232 inks are suitable for reverse printing a number of films:

- ? Corona treated polypropylene and co-extruded polypropylene
- ? Acrylic and PVOH coated polypropylene
- ? In-line treated Corona polyester
- ? Cast and Corona treated bi-oriented polyamide

Considering the wide variety of polyester and polyamide films used in the market, please contact our laboratory concerning all changes related to the substrate before use.

ADHESIVES

83232 printed films may be laminated with a number of single, two-component solvent-based, 100% solids and water-based adhesives.

The actual bond strength in the printed area is a function of the substrate, ink colour, adhesive and the adhesive weight. It is normally necessary to exceed a minimum adhesive weight to achieve acceptable bonds and this should be tested before bulk production of new combinations.

Specific combinations being possible with new films, new adhesives or conditions (in-line lamination, out-line lamination, "cold" solvent-less adhesives, "hot" solvent-less adhesives, please contact our technical service personnel for evaluation before use.

Cylinders

83232 inks are suitable for all types of engraved cylinders (chemical and mechanical engraving).

Press Speed

83232 inks may be printed at speeds of 50 to over 300m/min depending upon press drying capabilities and the solvent used for reduction

In-line lamination is possible with **83232** inks.

INK HANDLING

The ink should be reduced to obtain the required press viscosity.

The colour has to be homogenous to guarantee the required result and therefore it should be stirred before use.

REDUCTION

Normal : **83060-0925**

Dependent upon press speed and press drying capacity.

Retarder: **83060-0930**

It is essential to ensure solvent removal, especially with slow drying solvents, to avoid blocking and to maintain the low odour properties of **83232**, as even small quantities of 'clean' solvent may cause odour and taint problems. High-retained alcohol levels are known to interfere with the performance of the laminating adhesive.

No guarantees for our ink can be given if the above solvent reduction is not followed. The use of other solvents and solvent blends are known to cause problems such as blocking, odour and reduced bond strength. In extremely severe cases the wrong solvent can cause "Ink Chunk Out".

Viscosity

The viscosity has to be adjusted to printing conditions and the speed of the press.

Typical printing viscosities:

Zahn Cup#2	18 - 20 sec
Ford Cup#4	14 - 16 sec
Din Cup#4	14 - 16 sec

COLOUR RANGE

83232 inks are available in a wide colour range, only occasionally limited by selecting pigments suited to the requirements of the lamination.

The pigments used in **83232** inks are not necessarily fully resistant to all post printing conditions that may be encountered. It is therefore necessary to indicate the resistance required at the time of ordering.

WASTE DISPOSAL

Care should be exercised in the disposal of printing ink waste. This should be carried out in accordance with good industrial practice, observing all the appropriate regulations.

WASH UP

83060-0925

*This information has been carefully compiled from experience gained in the laboratory and under commercial conditions. However, the product's performance and its suitability for the customer's purpose depend on the particular conditions of use and the material being printed. We recommend that the customers satisfy themselves that each product meets their requirements in all respects before commencing a print run. Since we cannot anticipate or control the conditions under which our products are used it is not possible to guarantee their performance. All sales are subject to our standard terms and conditions of sale. We would point out the information contained in this leaflet is only a recommendation and may need to be altered to suit the conditions and efficiency of the equipment employed. **ink** products are not designed for use in conjunction with those of any other ink maker or similar supplier unless agreed to in writing.*

INK PRODUCTS COMPANY LIMITED

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