IMPRES™
POLYMERS

ECO IMPRES- 4010

Aqueous metallized film primer

TECHNICAL DATA SHEET

INTRODUCTION

ECO IMPRES 4010 is suitable for application via off-line coater units on the metallized filmic stocks. Is generally employed to enhance the adhesion of the inks on the metallized surfaces. This product does not have any slip enhancing additive, hence presents a very receptive surface to the printed inks over itself.

FEATURES & BENEFITS

- Press performance of this product is tuned to suite most high speed printing machines
- Stable on the press but dries quickly on the printed stock.
- Formulated suitably to accept overlapping inks
- Suitable for the off-line coating operations.
- APO and Glycol free formulation

APPLICATION PROCESS & PRINT CHARACTERISTICS

ECO IMPRES 4010: Aqueous metallized film primer is applicable via off-line coater units.

Single / Double sided	Single sided only
Heat resistance	Below 120^0 C
Alcohol resistance	Not specifically designed for this end use
Foil blockable / Glueable	Always check before use as glues behave differently and are based on different chemical entities (if necessary refer to Organic Coatings)
Soap and alkali resistance	Not specifically designed for this end use

Whilst not specifically formulated for minimum odour and taint properties, the general exclusion of the toxic materials and overall selection of the raw materials makes this product acceptable for

	food quality (indirect contact) work and school materials
PRINTING STOCKS	Different types of paper boards, coated paper stock (recommended stock GSM more than 80) or art cards
TYPICAL PROPERTIES	Appearance : Translucent liquid Viscosity Ford cup IV @30°C : 50 to 80 seconds pH : 7 – 9 Solids % : 46±1 Specific gravity : Close to one
TYPE OF INKS RECOMMENDED	Offset UV Inks, Solvent or Water based Flexo & Gravure inks
DRYING OF THE COATING	Once the sheets or web are coated they will be almost touch-dry on delivery. Drying is usually enhanced by a dedicated drying system, the most common of which being combination of IR lamps and hot air knives. The use of IR lamps allows the printer to control drying speed and print stack temperature. The ideal stack temperature for single side work would fall between 30.
VISCOSITY	• For high speed machines and in-line coating 35 to 45 seconds • For off-line coatings or slow machines 45 to 60 seconds Since addition of water lowers the viscosity at rapid rate, it is recommended that water should never be added at levels more than 2 to 3 %. Addition of excessive water results in sinking of the coating in the stock, thereby lowering the gloss level. Further, presence of excessive water means demand for additional heat energy to dry the coating this in turn may result in curling problems in case of low grammage printing stocks.
FOAMING ISSUES	Foaming is an inherent phenomenon for chemistry employed in these aqueous systems. The foam is generated due to turbulence / agitation levels within the aqueous coating application process. The foaming is curbed by employing external surfactant, called defoamers or de-aerators. Generally, these surfactants are of sacrificial nature - which means they themselves get consumed in the process of killing the foam generated. Excess addition of these defoamers at the coating manufacturers end presents problems, such as fish eye effect and or imperfect lay of the coatings. Certain grades of these surfactants, when used in excess are likely to affect the Over-Printing / Gluability / Foil Stamping acceptance

	characteristics of the dried aqueous coating film. The precautions required to be taken at the time of coating application to prevent excessive foaming being: 1. Ensure minimum feasible level of turbulence while applying the aqueous coatings a. The coating duct outlet pipe must be left deep inside (bottom) of the coating holding container b. If feasible employ peristaltic pump (operating on the squeezing like tooth paste technology) rather than normal pumps c. In case of excess buildup of foam in the coating tray or tank, spray or add recommended dosage of the Defoamer compound supplied by the coating manufacturer 2. Once the coating work is finished, the coating application system could be cleaned with hot ammonical or soap water. It is important that the coating is not allowed to dry completely on the roller or anilox as then the removal of the same becomes that much difficult. The steps to follow as soon as the work is finished are: a. Dis-engage the anilox or rubber roller from coating duct b. On one hand apply hot soapy water to the anilox / rubber roller / rubber blanket - to prevent coating from hard drying c. On other hand empty the balance coating from the coating duct. d. Simultaneously clean the coating duct and anilox / rubber roller etc. thoroughly off remaining aqueous coating
OPERATION RELATED PRECAUTIONS AND CLEANING PROCESS	When the coating/printing operation is stopped for any minor adjustments / corrections - keep the coating Roller or Anilox idling inside the coating duct - this prevents coating drying on the roller / anilox. In case of long stoppages, it is advisable to di-engage the roller / anilox from the coating duct and clean the same off aqueous coating to prevent coating drying on the same.
PACKING	20 and 240 kg in HDPE containers
STORAGE, SHELF LIFE AND HANDLING	Store in shadow with temperatures not exceeding 30^0 C and not below 5^0 C. If kept unopened and under recommended storage conditions then this product has a minimum shelf life of 12 months. Always shake before use. Always keep the lid tightly closed on the half-opened container. During the use do not put the coating to intense or vigorous agitation as this increases the tendency of foaming. If possible use peristaltic pump on the printing machine. The return pipe from the coating duct must always be touching the bottom of the coating vessel/container as this avoids excessive

	foaming. During the long print runs make an attempt to keep the coating container lid tightly closed. Coating, when wet could be cleaned with water (cold or warm water). For the information on use of w/b coating additives, which help to modify the coating properties to suite the machine and print job requirement, please refer to our W/B coating additive guide-line. This literature also helps in overcoming some of the frequently experienced coating related problems or headaches.
HEALTH & SAFETY	**Formulation** **:** In accordance with BCF "Raw material selection" **Manufacture** : Bulk manufactured in accordance with BCF "Good manufacturing practice" **Hazardous Goods label** : Not required Risk in usage. This coating will not pose anysignificant hazard provided reasonable standards of industrial practice are maintained
DISCLAIMER	The information contained in this product data sheet corresponds to our current knowledge and experience. The liability for the application and processing of this product lies with the buyer, who is also responsible for observing the third-party rights. Also, we reserve the right to alter any of the details presented here because of technical or manufacturing development

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