

**TECHNICAL DATA SHEET  
ECO IMPRES- 4055****INTRODUCTION :**

ECO-IMPRES-4055 is a non-film-forming styrene acrylic co-polymer emulsion for use in water-based inks and overprint varnishes.

**KEY FEATURES & BENEFITS :**

- Excellent re-solubility: Enabling smooth run of inks and coating based on this Emulsion systems.
- Fine reproduction of print images on the printing machines due to better re-solubility. The Anilox roller transfer is superior (even with fine Aniloxes). This also enable easy cleaning of the Aniloxes and Photo-polymer plates.
- Lower water resistance, Very high gloss and holdout on paper and paper board.
- Fast drying and exceptional film clarity.
- Mainly employed for paper, paper board and corrugated board applications.
- Compatible with other Eco-Impres resin emulsions, wax dispersions, coalescing agents commonly employed in water-based OPVs and ink systems -hence wide use of this emulsion in various formulations.
- High heat seal and film release properties.
- Stabilized with Biocide.
- Very hard polymer.
- APO free and free of glycols, glycol ethers, plasticizers and solvent.
- Good alcohol dilutability.
- Versatility -in terms of adjustment of hardness (Minimum Film Forming Temp.), by combining with other similar emulsions, enables use in variety of end use applications.
- Rheology Controlled (RC) emulsion.
- Outstanding stability in terms of pH, viscosity, rheological disturbances and freeze thaw.

**TYPICAL PROPERTIES :**

Appearance	:	Translucent liquid
Acid Value (on solids)	:	66 mg KOH/g
Density @ 25 °C	:	1 ± 0.05 gm/cc
Total solids, %	:	47±1
pH	:	8.0 –8.5
Brook Field Viscosity@300C	:	300-500
Tg	:	107 °C
Freeze / Thaw stable	:	Yes [5 cycle]

**COMPATIBILITY DATA:**

ECO-IMPRES 4055 is compatible with a wide range of resins including styrenated shellacs, acrylics and rosin maleic. Dilution with glycols, glycol ethers and alcohols is excellent.

## **APPLICATIONS :**

ECO-IMPRES 4055 is a non-film-forming styrene acrylic co-polymer emulsion of a very high Tg, developed for use in Water-based Overprint Varnishes and Flexographic Inks. It is used as an excellent let down medium for water-based inks. It provides high heat resistance and heat seal release properties in overprint varnishes. One can further enhance the heat resistance properties of this emulsion by employing Zinc Ammonium Carbonate solution ECO IMPRES 2063H, ECO IMPRES 4055 additionally provides gloss and optical clarity in overprint varnishes. ECO IMPRES 4055 can also be employed as de-blocking modifier.

ECO-IMPRES 4055 provides excellent transfer, very good hold-out on paper and paper board, fast drying and low foaming properties.

ECO-IMPRES 4055 is a very hard polymer. Generally, a coalescing agent or another softer emulsion is employed to enable film formation and/or gloss improvement for the room temperature applications. For this purpose, Glycols, Glycol Ethers on their own or in combination with ECO-IMPRES 2077, ECO-IMPRES 2074 & ECO-IMPRES 2074F.

ECO-IMPRES 4055 can be used to formulate high performance inks & overprint varnishes or OPVs. By varying the concentration of ECO-IMPRES 4055 in the formulation, a technician is able to adapt any formula to meet the individual press requirements, while ensuring fine line work and precise process color dot reproduction.

## **SAFETY DATA :**

ECO-IMPRES 4055 is alkaline in nature and harmful if swallowed. Avoid contact with skin and use protective clothing, hand gloves, goggles etc, while handling this material. In case of contact or splash on eyes, wash with copious amount of water and consult a physician.

ECO-IMPRES 4055 is a water-based system and non-flammable.

## **IMPORTANT NOTE :**

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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