

EBECRYL® 1300

Thermoforming Oligomer

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INTRODUCTION

EBECRYL 1300 is designed as the letdown oligomer for UV thermoformable ink applications, and should be used in conjunction with the pigment grind oligomer, EBECRYL 8413. EBECRYL 1300 exhibits good adhesion promoting properties. When used together with EBECRYL 8413, non-blocking thermoformable inks can be developed. These thermoformable inks demonstrate scratch and temperature resistance, as well as excellent adhesion to a variety of plastic substrates without the necessity of corona discharge or flame pretreatment.

PERFORMANCE HIGHLIGHTS

EBECRYL 1300 is characterized by:

- Good adhesion promoting properties
- Excellent flexibility
- High gloss
- Light color

UV cured thermoformable inks based on EBECRYL 1300 and EBECRYL 8413 are characterized by the following performance properties:

- Thermoformability (In external tests, 1 to 8 draw ratios have been achieved on polycarbonate sheets)
- Tack-free state after cure, non-blocking systems
- Good temperature resistance
- Good scratch resistance
- Low shrinkage (1.2%)
- Suitable for first and second surface applications
- Excellent intercoat adhesion
- Good adhesion to a variety of untreated plastic substrates including:
 - Polycarbonate
 - Polystyrene
 - PVC (polyvinylchloride)
 - Polyester
 - Acrylic
 - PET-G (glycol modified polyethyleneterephthalate)

The actual properties of the final cured products also depend on the selection of other formulation components such as reactive diluents, additives and photoinitiators.

SPECIFICATIONS

	VALUE
Appearance	Clear liquid
Color, Gardner scale, max.	1.0
Viscosity, 25°C, cP/mPa·s	7500 - 13500

TYPICAL PROPERTIES

Density, g/ml at 25°C	1.03
Flash point, °C (est.)	>100

SUGGESTED APPLICATIONS

Formulated products containing EBECRYL 1300 may be applied via flat bed screen methods and are recommended for use in screen inks in the following three-dimensional markets.

- Displays / Signage / POP
- Vending machine panels
- Packaging
- Sporting goods
- Architectural
- Electronics
- Appliance Nameplates
- Housing
- Toys
- Novelty items

PRECAUTIONS

Before using EBECRYL 1300, see the Safety Data Sheet (SDS) for information on the identified hazards of the material and the recommended personal protective equipment and procedures.

STORAGE AND HANDLING

Care should be taken not to expose the product to high temperature conditions, direct sunlight, ignition sources, oxidizing agents, alkalis or acids. This might cause uncontrollable polymerization of the product with the generation of heat. Storage and handling should be in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers. Procedures that remove or displace oxygen from the material should be avoided. Do not store this material under an oxygen free atmosphere. Dry air is recommended to displace material removed from the container. Wash thoroughly after handling. Keep container tightly closed. Use with adequate ventilation.

See the SDS for the recommended storage temperature range for EBECRYL 1300.

Please refer to the allnex Guide to Safety and Handling of Acrylate Oligomers and Monomers for additional information on the safe handling of acrylates.

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