

FATTY ACID MODIFIED POLYESTER HEXAACRYLATE

INTRODUCTION

EBECRYL® 873 is a fatty acid modified polyester hexaacrylate providing the proper hydrophilic-lipophilic balance necessary for good lithographic properties. Lithographic inks based on EBECRYL® 873 display outstanding printing quality and high reactivity when cured by ultraviolet light (UV) or electron beam (EB).

PERFORMANCE HIGHLIGHTS

EBECRYL® 873 is characterized by:

- Viscosity suited for offset inks
- Good pigment wetting
- Very good lithographic behavior
- Fast curing

UV/EB cured products based on EBECRYL® 873 are characterized by the following performance properties:

- •High abrasion resistance
- •Good heat resistance (e.g. fuser roller in form printing)
- •Good solvent resistance

The actual properties of UV/EB cured products also depend on the selection of the other formulation components, such as reactive diluent(s), additives and photo initiators.

SUGGESTED APPLICATIONS

Formulated UV/EB curable products containing EBECRYL® 873 may be applied by offset, flexo, screen (and gravure). EBECRYL® 873 is recommended for use in:

- Fast curing lithographic inks for paper and paperboard

VISCOSITY REDUCTION

If necessary, EBECRYL® 873 can be diluted with reactive monomers such as 1,6-hexanediol diacrylate (HDDA)⁽¹⁾, tripropyleneglycol diacrylate (TPGDA)⁽¹⁾, trimethylolpropane triacrylate (TMPTA)⁽¹⁾, ethoxylated trimethylolpropane triacrylate (TMPEOTA)⁽¹⁾, propoxylated glycerol triacrylate (OTA-480)⁽¹⁾, ditrimethylolpropane tetraacrylate (EBECRYL® 140)⁽¹⁾, or the tetrafunctional polyether acrylate, EBECRYL® 40⁽¹⁾. The specific reactive diluent(s) used will influence performance properties such as hardness and flexibility.

⁽¹⁾ Product of allnex

TYPICAL PROPERTIES

Acid value, mg KOH/g	~11
Appearance	Clear liquid
Color	Dark
Density, g/cm ³ at 25°C	1.1
Hydroxyl value, mg KOH/g	~15
Viscosity at 25°C, mPa.s	~40000

PRECAUTIONS

Before using EBECRYL® 873, 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® 873.