

HIGH MOLECULAR WEIGHT POLYESTER ACRYLATE

INTRODUCTION

EBECRYL® 859 is a high molecular weight polyester acrylate especially developed for high speed UV, HUV, UV LED, and EB cured offset lithographic inks. EBECRYL 859 exhibits excellent lithographic behavior, very good pigment wetting and high reactivity. EBECRYL® 859 contains some materials that are derived from Bisphenol A.®

PERFORMANCE HIGHLIGHTS

EBECRYL® 859 is characterized by:

- Medium viscosity (easy handling)
- Low odor
- Excellent pigment wetting (also for carbon black)
- High reactivity
- Excellent ink water balance
- Good compatibility with other acrylates

UV/EB offset lithographic inks based on EBECRYL® 859 are characterized by the following performance properties:

- Good flow
- High gloss
- Stable ink water emulsion ensuring constant ink transfer
- Reduced misting
- Reduced dot gain
- High cure speed

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

EBECRYL® 859 is recommended for commercial applications using high speed sheetfed offset on paper and board substrates. It can also be used in other wet or dry offset inks, and in other applications such as UV/EB flexographic and screen inks.

SPECIFICATIONS

Acid value, mg KOH/g	max. 5
Appearance	Clear liquid
Color, Gardner	max. 15
Hydroxyl value, mg KOH/g	max. 20
Residual acrylic acid, ppm	max. 500
Residual solvent (toluene), ppm	max. 10
Viscosity at 60°C, mPa.s	600 - 1200

TYPICAL PROPERTIES

Density, g/cm ³ at 25°C	1.11
Functionality, theoretical	6
Viscosity at 25°C, 20 S-1, mPa-s	~36000

PRECAUTIONS

Before using EBECRYL® 859, 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® 859.