

LOW MIGRATION POLYESTER ACRYLATE OLIGOMER

INTRODUCTION

EBECRYL® 1871 is a hexafunctional polyester acrylate oligomer that provides high reactivity and the proper ink-water balance necessary for good lithographic printing. Lithographic inks based on EBECRYL® 1871 display excellent rheological properties ensuring good ink transfer from the printing plate to the blanket and then to the substrate, combined with good dot definition.

EBECRYL® 1871 has been specifically developed to formulate low migration UV/EB curable inks for indirect food contact applications.

PERFORMANCE HIGHLIGHTS

EBECRYL® 1871 is characterized by:

- Very good lithographic behavior
- Good pigment wetting

UV/EB cured products based on EBECRYL® 1871 are characterized by the following performance properties:

- Fast curing
- Good solvent resistance
- High gloss
- Low migration

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

SUGGESTED APPLICATIONS

EBECRYL® 1871 is recommended for use in:

- Lithographic and flexographic inks
- Offset OPV
- Inks and coatings for indirect food packaging and related applications

SPECIFICATIONS

Acid value, mg KOH/g	max. 15
Appearance	Clear dark liquid
Residual solvent, ppm	max. 50
Viscosity, 25°C, mPa.s	44000 - 54000

TYPICAL PROPERTIES

Density, g/cm ³	1.08
Functionality, theoretical	6

STARTING POINT FORMULATION

Low Migration Litho Ink

Pigment Dispersion	Parts by weight
EBECRYL® 1871	50 - 60
EBECRYL® 45 ⁽¹⁾ (dilution)	5 - 10
Pigment	30 - 25
In-can stabilizer	1 - 3
Ink	
EBECRYL® 1871 pigment dispersion	50 - 60
EBECRYL® 2221 ⁽¹⁾ (reactivity)	20 - 25
EBECRYL® 45 (dilution)	2 - 4
Talc or inert fillers	2 - 5
Waxes or other additives	0 - 2
EBECRYL® P39 ⁽¹⁾ (photoinitiator)	8 - 10
Polymeric amino benzoate (amine synergist)	5

⁽¹⁾ product of allnex

PRECAUTIONS

Before using EBECRYL® 1871, 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® 1871.