

EPOXY ACRYLATE OLIGOMER

INTRODUCTION

EBECRYL® 3608 is a fatty acid modified epoxy acrylate oligomer diluted with 15% of oligotriacrylate (OTA 480), characterized by low odour, light colour, low irritancy, excellent pigment wetting properties and good cure response when cured by exposure to ultraviolet light (UV) or electron beam (EB). Cured films of EBECRYL® 3608 exhibit high surface hardness, good solvent resistance and low residual odour. EBECRYL® 3608 is particularly suited for use in formulating lithographic inks.

PERFORMANCE HIGHLIGHTS

EBECRYL® 3608 is characterized by :

- Light colour
- Good cure response
- Low irritancy
- Excellent pigment wetting

UV/EB cured products based on EBECRYL® 3608 are characterized by the following performance properties :

- High surface hardness
- High gloss
- Good solvent resistance
- Low residual odour and extractables

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® 3608 may be applied by lithographic, screen, gravure, direct or reverse roll, and curtain coating methods.

EBECRYL® 3608 is recommended for use in :

- Lithographic and screen inks and coatings
- Overprint varnishes
- Coatings on cardboard, chipboard, paper and rigid plastics
- Paper upgrading

TYPICAL VALUES

Höppler viscosity at 60°C, mPa.s	± 1000
Colour, Gardner	max. 2
Acid value, mg KOH/g	max. 2

PHYSICAL PROPERTIES

Density, g/cm ³	1.14
Molecular weight, theoretical	550
Functionality, theoretical	2
Polymer solids, % by weight	85
OTA 480, % by weight	15

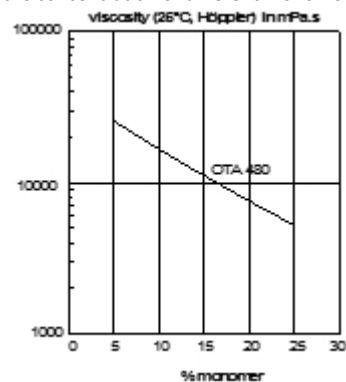
TYPICAL CURED PROPERTIES

Tensile strength, MPa	91
Tensile elongation, %	6
Glass transition temperature, °C	57

VISCOSITY REDUCTION

EBECRYL® 3608 can be diluted with reactive monomers such as oligotriacrylate (OTA 480)⁽¹⁾. The specific reactive diluent(s) used will influence performance properties such as hardness and flexibility.
⁽¹⁾ product of allnex

The graph shows the viscosity reduction of EBECRYL® 3608 as a function of the concentration of different monomers.



STORAGE AND HANDLING

Care should be taken not to expose radiation curable products to temperatures exceeding 40°C for prolonged periods or to direct sunlight. This might cause uncontrollable polymerization of the product with generation of heat.

Storage and handling should be in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers. Do not store this material under an oxygen free atmosphere. Use dry air to displace material removed from the container. This material should not be stored for more than 2 years.

PRECAUTIONS

The following is a summary of the precautions to be taken when handling this product. Please refer to the Safety Data Sheet for further details.

The toxicological properties of this material have not been fully determined. Products of this type can be expected to be eye and skin irritant and have the potential to cause sensitization or other allergic responses. Appropriate precautions should be taken to avoid eye and skin contact and to avoid inhalation of the aerosols or vapours. Consult the relevant Safety Data Sheet for appropriate handling procedures and protective equipment prior to using this or any other material referred to in this bulletin.

See Safety Data Sheet for emergency and first aid procedures.

STATUTORY LABELING

For Statutory Labeling information, please refer to Safety Data Sheet.