

EPOXY ACRYLATE OLIGOMER

INTRODUCTION

EBECRYL® 605/40 is a bisphenol A epoxy diacrylate oligomer diluted with approx. 40% of tripropylene glycol diacrylate (TPGDA) monomer. EBECRYL® 605/40 is characterized by its low colour, low odour, relatively low viscosity and fast cure response. Films of EBECRYL® 605/40 cured by ultraviolet light (UV) or electron beam (EB) exhibit high gloss, good surface hardness and the good solvent resistance typical of an epoxy resin.

PERFORMANCE HIGHLIGHTS

EBECRYL® 605/40 is characterized by:

- Light colour
- Low odour
- Low viscosity
- Fast cure response

UV/EB cured products based on EBECRYL® 605/40 are characterized by the following performance properties :

- Good surface hardness
- High gloss
- 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® 605/40 may be applied by lithographic, screen, gravure, direct or reverse roll, and curtain coating methods. EBECRYL® 605/40 is recommended for use:

- Overprint varnishes
- Coatings for wood, cardboard, chipboard, paper and rigid plastics
- Paper upgrading
- Screenprint inks and coatings
- Woodfillers and top coats

TYPICAL VALUES

Höppler viscosity at 25°C, mPa.s	approx. 1650
Colour, Gardner	max. 2

PHYSICAL PROPERTIES

Density, g/cm ³	1.11
Molecular weight, theoretical	500
Functionality, theoretical	2
Polymer solids, % by weight	approx. 60
TPGDA, % by weight	approx. 40

VISCOSITY REDUCTION

EBECRYL® 605/40 can be diluted with reactive monomers such as tripropylene glycol diacrylate (TPGDA)⁽¹⁾, trimethylolpropane triacrylate (TMPTA)⁽¹⁾ and 1,6-hexanediol diacrylate (HDDA)⁽¹⁾. The specific reactive diluent(s) used will influence performance properties such as hardness and flexibility.

⁽¹⁾ product of allnex

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.

PRECAUTION

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.