

URETHANE ACRYLATE OLIGOMER

INTRODUCTION

EBECRYL® 245 is an aliphatic urethane diacrylate oligomer diluted with 25% of tripropylene glycol diacrylate (TPGDA). EBECRYL® 245 is characterized by its light colour and low irritancy. Films of EBECRYL® 245 cured by ultraviolet light (UV) or electron beam (EB) exhibit good flexibility and non-yellowing properties typical of an aliphatic urethane.

PERFORMANCE HIGHLIGHTS

EBECRYL® 245 is characterized by:

- Light colour

UV/EB cured products based on EBECRYL® 245 are characterized by the following performance properties:

- Good flexibility
- Good non-yellowing properties

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

EBECRYL® 245 is recommended for use in:

- Flexible screen inks and coatings
- Coatings on PVC, linoleum and flexible plastics

TYPICAL VALUES

Höppler viscosity at 60°C, mPa.s	± 2500
Colour, Gardner	max. 2

PHYSICAL PROPERTIES

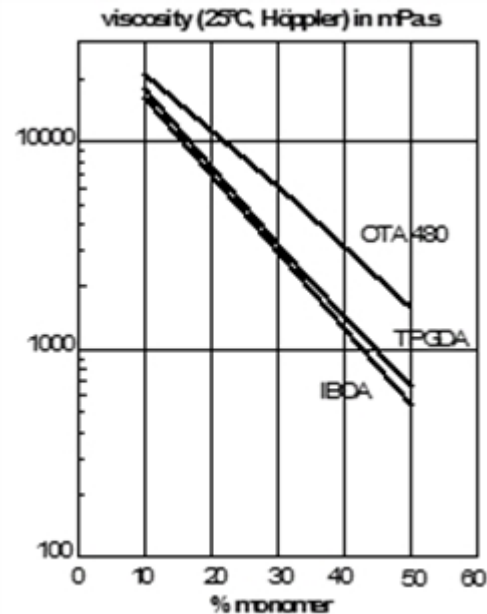
Density, g/cm ³	1.10
Molecular weight, theoretical	2000
Functionality, theoretical	2
Polymer solids, % by weight	75
TPGDA, % by weight	25

VISCOSITY REDUCTION

EBECRYL® 245 can be diluted with reactive monomers such as 1,6-hexanediol diacrylate (HDDA)⁽¹⁾, tripropyleneglycol diacrylate (TPGDA)⁽¹⁾, trimethylolpropane triacrylate (TMPTA)⁽¹⁾, oligotriacrylate (OTA 480)⁽¹⁾, octyl/decyl acrylate (ODA)⁽¹⁾ and isobornyl acrylate (IBOA)⁽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® 245 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.

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.

