EBECRYL® 6040

Technical Datasheet

EPOXY ACRYLATE OLIGOMER

INTRODUCTION

EBECRYL® 6040 is a modified diacrylate ester of bisphenol A epoxy resin. EBECRYL® 6040 is characterized by its low odour, light colour, low irritancy and fast cure response. Films of EBECRYL® 6040 cured by ultraviolet light (UV) or electron beam (EB) exhibit high surface hardness, high gloss, low residual odour and the excellent solvent resistance typical of epoxy resins. EBECRYL® 6040 is particularly useful in overprint varnishes.

PERFORMANCE DATA

EBECRYL® 6040 is characterized by :

- Light colour
- Fast cure response
- Low irritancy

UV/EB cured products based on EBECRYL® 6040 are characterized by the following performance properties :

- High surface hardness
- High gloss
- Excellent solvent resistance
- Low residual odour

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® 6040 may be applied by lithographic, screen, gravure, direct or reverse roll, and curtain coating methods.
EBECRYL® 6040 is recommended for use in :

- Screen inks and varnishes
- Overprint varnishes
- Coatings on wood, cardboard, chipboard, paper and rigid plastics
- Coatings where low residual odour is required

TYPICAL VALUE

Höppler viscosity at 25°C, mPa.s	± 25000
Colour, Gardner	max. 2
Acid value, mg KOH/g	max. 2
Density, g/cm^3	1.14
Molecular weight, theoretical	500
Functionality, theoretical	2

VISCOSITY REDUCTION

EBECRYL® 6040 can be diluted with reactive monomers such as oligotriacrylate (OTA 480)[(1)], 1,6-hexanediol diacrylate (HDDA)[(1)], tripropyleneglycol diacrylate (TPGDA)[(1)], trimethylolpropane triacrylate (TMPTA)[(1)] and octyl/decyl acrylate (ODA)[(1)].

[(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.