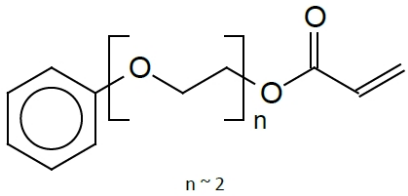
EBECRYL® 110

Technical Datasheet

ETHOXYLATED PHENOL ACRYLATE



INTRODUCTION

EBECRYL® 110 is an oxyethylated phenol acrylate monomer characterized by its low odour and low viscosity. EBECRYL® 110 is used in ultraviolet (UV) or electron beam (EB) cured coatings to lower viscosity and increase flexibility.

PERFORMANCE HIGHLIGHTS

EBECRYL® 110 is characterized by:

- Low viscosity
- Reduced odor relative to 2-Phenoxyethyl acrylate
- Excellent diluency
- High refractive index

UV/EB cured products based on EBECRYL® 110 are characterized by the following performance properties:

- Good flexibility
- Higher refractive index

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

SUGGESTED APPLICATIONS

EBECRYL® 110 is recommended as reactive diluent for:

- Coatings and screen inks on flexible and semi-rigid plastics including polyolefins
- Optical fiber coatings
- High refractive index coatings

SPECIFICATIONS

Acid value, mg KOH/g	max. 1
Appearance	Clear liquid
Colour, Gardner	max. 1
Viscosity at 25°C, mPa.s	13 - 27

TYPICAL PHYSICAL PROPERTIES

Density, g/cm^3	1.12
Flash point, Setaflash, °C	> 100
Formula weight	236
Refractive index (n_D at 20°C)	1.505
Vapor pressure, mm Hg at 20°C	< 0.03

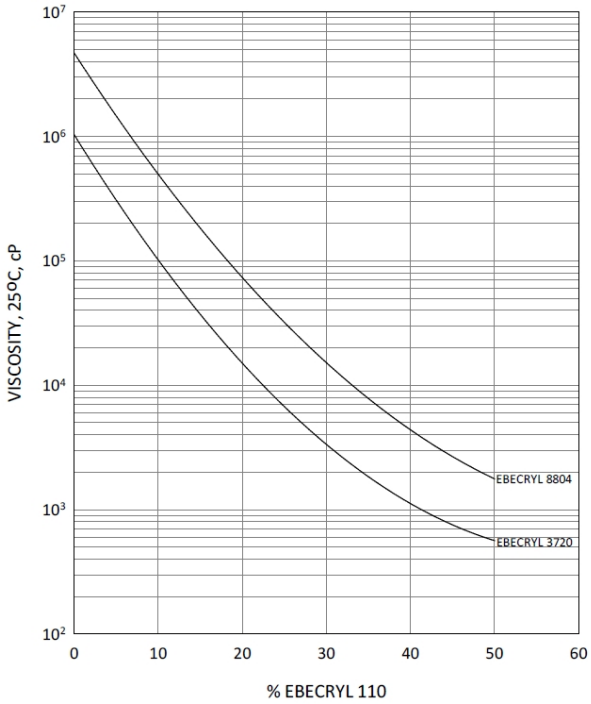
VISCOSITY REDUCTION

Graph I shows the viscosity reduction of two EBECRYL® oligomers when blended with an increasing weight percent of EBECRYL® 110. EBECRYL® 3720[(1)] is a bisphenol A based epoxy diacrylate. EBECRYL® 8804[(1)] is an aliphatic urethane diacrylate.

[(1)] product of allnex

GRAPH I

EBECRYL® 110 - DILUENCY EFFECT ON VISCOUS OLIGOMERS



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.

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® 110. This material should not be stored for longer than its shelf life.
See Certificate of Analysis (CoA) for the actual shelf life of EBECRYL® 110.

STATUTORY LABELING

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