

### EPOXY METHACRYLATE OLIGOMER

## INTRODUCTION

EBECRYL® 611 is an epoxy dimethacrylate oligomer without monomers or diluting oligomers. EBECRYL® 611 is recommended for use in applications where high temperature resistance or high hardness is needed.

## PERFORMANCE HIGHLIGHTS

EBECRYL® 611 is characterized by:

- Low colour
- Very high viscosity

UV/EB cured products based on EBECRYL® 611 are characterized by the following performance properties:

- Hardness
- High temperature resistance
- Good adhesion

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® 611 may be applied by lithographic, screen, gravure, direct or reverse roll, and curtain coating methods. Also impregnation and brushing application methods are suitable.

EBECRYL® 611 is recommended for use in:

- Temperature resistant coatings
- Coatings with high hardness
- Fibre composites

## TYPICAL VALUES

Rotational viscosity at 60°C, mPa.s	2000 - 4000
Colour, Gardner	max. 2
Acid value, mg KOH/g	max. 5

## PHYSICAL PROPERTIES

Density, g/cm <sup>3</sup>	> 1
Molecular weight, theoretical	ca. 550
Functionality, theoretical	2
Polymer solids, % by weight	100

## VISCOSITY REDUCTION

EBECRYL® 611 can be diluted with reactive monomers such as 1,6-hexanediol diacrylate (HDDA)<sup>(1)</sup>, trimethylolpropane triacrylate (TMPTA)<sup>(1)</sup>, tripropyleneglycol diacrylate (TPGDA)<sup>(1)</sup>, octyl/decyl acrylate (ODA)<sup>(1)</sup> and oligotriacrylate (OTA 480)<sup>(1)</sup>. The specific reactive diluent(s) used will influence performance properties such as hardness and flexibility.

<sup>(1)</sup> 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

Please refer to Safety Data Sheet.