

POLYETHER AMINO ACRYLATE

### INTRODUCTION

EBECRYL® 80 is a low viscous amine modified multifunctional acrylated polyether oligomer generally used as main oligomer in a clear overprint varnish. EBECRYL® 80 has been developed specially for applications where high gloss and fast cure by radiation are desired together with a good solvent resistance and low residual odour.

### PERFORMANCE HIGHLIGHTS

EBECRYL® 80 is characterized by:

- Fast cure response
- Light colour
- Low viscosity

UV/EB cured products based on EBECRYL® 80 are characterized by the following performance properties:

- Good solvent resistance
- High gloss
- 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® 80 may be applied by lithographic, screen, gravure, direct or reverse roll, and curtain coating methods.

EBECRYL® 80 is recommended for use in:

- Clear coatings on paper, wood, plastics
- Top coats for wood
- Screen inks and coatings
- Wood fillers
- High gloss coatings

### TYPICAL VALUE

Höppler viscosity at 25°C, mPa.s ca. 3000  
Colour, Gardner max. 2

### PHYSICAL PROPERTIES

Density, g/cm<sup>3</sup> 1.11  
Functionality, theoretical 4  
Polymer solids, % by weight 100

### TYPICAL STARTING POINT FORMULATIONS

1. UV-CURE cured with 1 lamp of 80 W/cm

Composition	I	II	III	IV
EBECRYL® 80	100	91	83	70
OTA 480	-	9	17	30
Esacure HB	6	6	6	6

Cure speed  
m/min 90 90 90 90

MEK resist  
Double rubs 100 90 > 100 > 100

Viscosity  
mPa.s 25°C 2890 2680 2040 1090

2. EB-CURE

100% EBECRYL® 80 MEK resist: > 100 double rubs  
Cured at 1.5 Mrad (for 170 Kev - 80 ppm O<sub>2</sub>)

### 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. 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 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.

### STATUTORY LABELING

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