

URETHANE ACRYLATE OLIGOMER

INTRODUCTION

EBECRYL® 1290N is a hexafunctional aliphatic urethane acrylate oligomer which provides very fast cure response when exposed to ultraviolet light (UV) or electron beam (EB). Cured films of EBECRYL® 1290N exhibit high hardness and solvent resistance.

PERFORMANCE HIGHLIGHTS

EBECRYL® 1290N is characterized by:

- Light colour
- Low viscosity
- Excellent cure response

UV/EB cured products based on EBECRYL® 1290N are characterized by the following performance properties:

- Good surface hardness and excellent scratch resistance
- Good chemical resistance
- Excellent abrasion resistance

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® 1290N may be applied by spray, screen printing, gravure, direct or reverse roll, curtain coating, spin-coating and other methods.

EBECRYL® 1290N is recommended for use:

- Coating for paper foils
- Scratch resistant coatings on plastic and wood
- Improve cure speed and solvent resistance
- In clear and pigmented protective coatings for paper, paperboard, wood, rigid plastics, film substrates

TYPICAL VALUES

Viscosity @60°C, mPa.s	~ 1100
Colour, Apha	max. 200

PHYSICAL PROPERTIES

Density @ 25°C, g/cm ³	1.18
Molecular weight, theoretical	± 1000
Functionality, theoretical	6
Polymer solids, % by weight	100

VISCOSITY REDUCTION

EBECRYL®1290N can be diluted with reactive monomers such as EBECRYL®40⁽¹⁾, 1,6-hexanediol diacrylate (HDDA)⁽¹⁾ and trimethylolpropane triacrylate (TMPTA)⁽¹⁾. The specific reactive diluent(s) used will influence performance properties such as hardness and flexibility.

⁽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.

STATUTORY LABELING

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