

DILUTED POLYESTER OLIGOMER

INTRODUCTION

EBECRYL® 573 is a modified flexible polyester acrylate resin diluted with TPGDA. It exhibits good shrinkage properties and was specifically developed for use in flexo printed shrink sleeve applications.

PERFORMANCE HIGHLIGHTS

EBECRYL® 573 is characterized by:

- Low relative viscosity

UV/EB cured formulations based on EBECRYL® 573 are characterized by the following performance properties:

- Good flexibility/shrink behaviour (gloss retention)
- Good adhesion on plastics: PVC, PET-G, OPS
- Good printability
- Excellent wrinkle resistance

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

VISCOSITY REDUCTION

EBECRYL® 573 can be further diluted with reactive monomers such as dipropylene glycol diacrylate (DPGDA), tripropylene glycol diacrylate (TPGDA), EBECRYL® 160/TMPEOTA (trimethylolpropane ethoxy triacrylate) or EBECRYL® 40. The specific reactive diluent(s) used will influence performance properties such as hardness and flexibility.

DPGDA, TPGDA, EBECRYL® 160/TMPEOTA and EBECRYL® 40 are produced by allnex.

TYPICAL PHYSICAL PROPERTIES

Appearance	Clear liquid
Acid value, mg KOH/g	≤15
Color, Gardner scale	≤4
Density, g/ml at 25°C	~1.1
TPGDA, %	18
Viscosity, 25°C, cP/mPa·s	±4000

TYPICAL CURED PROPERTIES

Tensile strength, MPa (psi) ⁽¹⁾	5 (725)
Elongation at break, % ⁽¹⁾	40
Young's modulus, psi (MPa) ⁽¹⁾	20 (2900)
Glass transition temperature (by DMTA), °C ⁽¹⁾	3

(1) Measured on a 100 µm EB cured film.

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.

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 irritants and have the potential to cause sensitization or other allergic responses. Appropriate precaution should be taken to avoid eye and skin contact and to avoid inhalation of aerosols or vapours containing this product. 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 procedure

STATUTORY LABELLING

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