

EBECRYL® 571 Diluted Polyester Oligomer

Introduction

EBECRYL® 571 is specially developed for use in flexo printed shrink sleeve applications.

EBECRYL 571 is a modified polyester resin diluted with 40% of dipropylene glycol diacrylate (DPGDA) which exhibits good pigment wetting properties.

Performance Highlights

EBECRYL 571 is characterized by:

- Good pigment wetting

UV/EB cured formulations based on EBECRYL 571 are characterized by the following performance properties:

- Good adhesion on plastics: PVC, PET-G, OPS
- High flexibility
- 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.

Suggested Applications

UV/EB curable products containing EBECRYL 571 may be applied by different application methods like: flexographic, screen, gravure, direct or reverse roll, and curtain coating methods.

However, EBECRYL 571 is particularly recommended for use in: Flexographic inks and coatings for shrink sleeve applications.

Typical Values

Dynamic viscosity at 25°C, mPa.s	± 9000
Colour, Gardner	max. 3
Density, g/cm ³	1.14
Polymer solids, % by weight	60
DPGDA, % by weight	40

Typical Cured Properties

Tensile strength, MPa ⁽¹⁾	8
Tensile elongation, % ⁽¹⁾	20
Young Modulus, MPa ⁽¹⁾	551
Tg, °C (by DHTA- max tg δ)	44
Surface tension, dynes/cm	39
Refractive index @ 25°C	1.5069

⁽¹⁾ Measured on a 125µ UV cured film at 21°C

Viscosity Reduction

EBECRYL 571 can be further diluted with reactive monomers such as dipropylene glycol diacrylate (DPGDA), 1,6 hexanediol diacrylate (HDDA), tripropylene glycol diacrylate (TPGDA), trimethylolpropane triacrylate (TMPTA), EBECRYL 160 or EBECRYL 40. The specific reactive diluent(s) used will influence performance properties such as hardness and flexibility.

DPGDA, HDDA, TPGDA, TMPTA, EBECRYL 160 and EBECRYL 40 are produced by Cytec Industries – Specialty Coatings Resins.

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 Labeling

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

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