

CHLORINE FREE POLYESTER RESIN

INTRODUCTION

EBECRYL® 575 is a chlorine free and tin free polyester resin diluted with the reactive diluent EBECRYL® 892. It has been specifically designed for low migration applications, and to provide good adhesion to plastic substrates. Films of EBECRYL® 575 cured by ultraviolet light (UV) or electron beam (EB) exhibit good hardness.

PERFORMANCE HIGHLIGHTS

EBECRYL® 575 is characterized by:

- Compliance with the Nestle list on acrylates
- Light color
- Chlorine free
- Very good pigment wetting
- Good ink water balance
- Good adhesion-scratch compromise

Cured films of EBECRYL® 575 show good adhesion to plastics substrates such as PE, PP, PET, PC and PVC

The actual properties of UV/EB cured formulations based on EBECRYL® 575 also depend on the selection of the other formulation components, such as reactive diluent(s), additives and photo initiators.

SUGGESTED APPLICATIONS

EBECRYL® 575 is recommended for use in:

- Sensitive applications such as food packaging (Compliant with Nestle acrylate criteria)
- Offset Inks for plastic and metallic substrates

UV/EB curable formulations containing EBECRYL® 575 can of course also be used in other applications such as flexography, dry offset, and screen printing.

SPECIFICATIONS

Appearance	Clear to slightly hazy liquid
Color, Gardner	max. 2.5
Residual solvent (toluene), ppm	< 100
Viscosity, 25°C, mPa.s	55000 - 75000

TYPICAL PROPERTIES

Acid value, mg KOH/g	max. 10
Density, g/cm ³ at 25°C	1.1
Hydroxyl value, mg KOH/g	< 40
Resin, % by weight	51
EBECRYL® 892, % by weight	49
Residual acrylic acid, ppm	< 1000
Viscosity, 60°C, mPa.s	~1400

VISCOSITY REDUCTION

EBECRYL® 575 can be further diluted with EBECRYL® 892⁽¹⁾ or other reactive monomers such as, 1,6-hexanediol diacrylate (HDDA)⁽¹⁾, tripropylene glycol diacrylate (TPGDA)⁽¹⁾, propoxylated glycerol triacrylate (OTA-480)⁽¹⁾ or trimethylolpropane triacrylate (TMPTA)⁽¹⁾. Although viscosity reduction can be achieved with non-reactive solvents, reactive diluents are preferred because they are essentially 100 percent converted during UV/EB exposure to form a part of the coating or ink, thus reducing solvent emissions. The specific reactive diluents used will influence performance properties such as hardness and flexibility.

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PRECAUTIONS

Before using EBECRYL® 575, see the Safety Data Sheet (SDS) for information on the identified hazards of the material and the recommended personal protective equipment and procedures.

STORAGE AND HANDLING

Care should be taken not to expose the product to high temperature conditions, direct sunlight, ignition sources, oxidizing agents, alkalis or acids. This might cause uncontrollable polymerization of the product with the generation of heat. Storage and handling should be in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers. Procedures that remove or displace oxygen from the material should be avoided. Do not store this material under an oxygen free atmosphere. Dry air is recommended to displace material removed from the container. Wash thoroughly after handling. Keep container tightly closed. Use with adequate ventilation.

See the SDS for the recommended storage temperature range for EBECRYL® 575.