TECHNICAL DATASHEET

EBECRYL® 444

Chlorinated Polyester

July 2017

EBECRYL® UV/EB Energy Curable Resins

INTRODUCTION

EBECRYL 444 is a reactive chlorinated polyester resin diluted 40% with the reactive diluent propoxylated glycerol triacrylate (OTA-480)(1). EBECRYL 444 is not based on bisphenol A raw materials, and is tin-free. It exhibits good lithographic behavior and pigment wetting properties, and fast cure response in ultraviolet light (UV) curable coatings and inks. Cured films of EBECRYL 444 display good adhesion to metals, and paper.

PERFORMANCE HIGHLIGHTS

EBECRYL 444 is characterized by:

- Good wet lithographic behavior
- Fast curing
- Low odor

UV/EB cured formulations based on EBECRYL 444 are characterized by the following performance properties:

- Good adhesion to metals, and paper

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 photoinitiators.

SUGGESTED APPLICATION

UV/EB curable formulations containing EBECRYL 444 may be applied by lithographic, screen, gravure, direct or reverse roll, and curtain coating methods.

EBECRYL 444 is recommended for use in:

- Wet lithographic inks and coatings for paper, and metals
- Adhesion promoter for inks and coatings on metals, and paper

SPECIFICATIONS	VALUE
Appearance	Clear liquid
Color, Gardner scale, max.	3
Viscosity, 60°C, cP/mPa·s	1000-2000

TYPICAL PROPERTIES

Acid value, mg KOH/g	<25
Density, g/ml at 25°C	1.26
Resin, % by weight	60
OTA-480, % by weight	40

VISCOSITY REDUCTION

EBECRYL 444 can be further diluted with OTA-480 or other reactive monomers such as, 1,6-hexanediol diacrylate (HDDA)(1), tripropylene glycol diacrylate (TPGDA)(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.

PRECAUTIONS

Before using EBECRYL 444, 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 444.

Please refer to the allnex Guide to Safety and Handling of Acrylate Oligomers and Monomers for additional information on the safe handling of acrylates.

(1) Product of allnex

www.allnex.com