

MODIFIED CHLORINATED POLYESTER RESIN

INTRODUCTION

EBECRYL® 441 is a modified chlorinated polyester resin diluted in trimethylolpropane triacrylate (TMPTA) and is free from intentionally added Bisphenol A. EBECRYL® 441 demonstrates good pigment wetting and dispersion characteristics and is useful as a pigment grinding resin in lithographic ink formulations. UV curing inks produced with EBECRYL® 441 demonstrate enhanced ink water balance, high reactivity and excellent adhesion to plastic, metal and paper substrates.

PERFORMANCE HIGHLIGHTS

EBECRYL® 441 can provide improvements in both the processing and performance of the UV curing inks.

In the formulating process:

- Pigment wetting: medium to good

In the cured ink

- High reactivity/cure speed
- Good adhesion

APPLICATIONS

Formulations using EBECRYL® 441 are ideally suited for:

Printing technology

- Wet lithographic printing - improved ink water balance and lower misting
- Flexographic printing - improved adhesion

Substrates

- Plastics, metals and papers for improved adhesion

VISCOSITY REDUCTION

EBECRYL® 441 can be diluted with reactive monomers such as 1,6-hexanediol diacrylate (HDDA)⁽¹⁾, tripropylene glycol diacrylate (TPGDA)⁽¹⁾ propoxylated glycerol triacrylate (OTA-480)⁽¹⁾ and trimethylolpropane triacrylate (TMPTA)⁽¹⁾. The specific reactive diluent(s) used will influence performance properties such as odor, adhesion, hardness and flexibility.

⁽¹⁾ product of allnex

TYPICAL PROPERTIES

Appearance	Clear liquid
Color, Gardner	max. 2
Density, g/cm ³	1.14
Resin, % by weight	68
TMPTA, % by weight	32
Viscosity, 25°C, mPa.s	89000
Viscosity, 60°C, mPa.s	~1900

PRECAUTIONS

Before using EBECRYL® 441, 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® 441.