

MODIFIED CHLORINATED POLYESTER

INTRODUCTION

EBECRYL® 446 is a modified chlorinated polyester resin diluted 32% by weight with the reactive diluent trimethylolpropane triacrylate (TMPTA). This resin is primarily used in printing inks to improve adhesion to difficult substrates. EBECRYL® 446 demonstrates excellent adhesion to many plastic and metal substrates along with good pigment wetting, water balance and high reactivity.

PERFORMANCE HIGHLIGHTS

- Good pigment wetting
- Good ink water balance
- Low misting
- High reactivity
- Improved adhesion

SUGGESTED APPLICATIONS

EBECRYL® 446 is recommended for lithographic, dry offset and flexographic inks.

It is compatible with other polyester acrylates and epoxy acrylates.

- Lithographic printing - improved adhesion, ink water balance, lower misting
- Flexographic printing - improved adhesion
- Substrates: plastics, metals and papers - improved adhesion

TYPICAL TACK RANGES

| Oligomer / Reactive diluent | Tack, g-m |
|-----------------------------|-----------|
| EBECRYL® 446 | 24-26 |
| EBECRYL® 446 / 5% OTA 480 | 17-19 |
| EBECRYL® 446 / 10% OTA 480 | 14-16 |
| EBECRYL® 446 / 5% TPGDA | 15-17 |
| EBECRYL® 446 / 10% TPGDA | 8-10 |

400 rpm, 90°F, 3 minutes; Thwing-Albert Electronic Inkometer

SPECIFICATIONS

| | |
|------------------------|--------------|
| Appearance | Clear liquid |
| Color, Gardner | max. 5 |
| Viscosity, 60°C, mPa.s | 1500 - 2100 |

TYPICAL PROPERTIES

| | |
|------------------------|-------|
| Density, g/cm³ at 25°C | 1.14 |
| Oligomer, % by weight | 68 |
| TMPTA, % by weight | 32 |
| Viscosity, 25°C, mPa.s | 89000 |

VISCOSITY REDUCTION

EBECRYL® 446 can be diluted with reactive monomers such as tripropyleneglycol diacrylate (TPGDA)⁽¹⁾, propoxylated glycerol triacrylate (OTA 480)⁽¹⁾, 1,6 hexanediol diacrylate (HDDA)⁽¹⁾ and trimethylolpropane triacrylate (TMPTA)⁽¹⁾. The specific reactive diluent(s) used will influence performance properties such as hardness and flexibility. It can also be used in combination with other resins such as EBECRYL® 657⁽¹⁾, EBECRYL® 870⁽¹⁾ and EBECRYL® 3700⁽¹⁾ to adjust performance properties such as pigment wetting and reactivity.

⁽¹⁾ product of allnex

PRECAUTIONS

Before using EBECRYL® 446, 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® 446.