

EBECRYL® 1200

Acrylic Acrylate

March 2017



INTRODUCTION

EBECRYL 1200 is an acrylate functional acrylic resin supplied in 45% by weight of butyl acetate. Upon evaporation of the solvent, films of EBECRYL 1200 are physically dry and tack-free and after UV/EB curing are hard and chemical resistant without embrittlement. The viscosity and cured properties can be adjusted with the addition of reactive diluents such as 1,6-hexanediol diacrylate (HDDA)⁽¹⁾, isobornyl acrylate (IBOA)⁽¹⁾, trimethylolpropane triacrylate (TMPTA)⁽¹⁾, and tripropylene glycol diacrylate (TPGDA)⁽¹⁾. A suitable photoinitiator must be added for polymerization with UV energy

PERFORMANCE HIGHLIGHTS

EBECRYL 1200 is characterized by:

- Moderate viscosity
- Light color
- Physically dry after solvent evaporation

UV/EB cured products containing EBECRYL 1200 are characterized by the following performance properties:

- Excellent chemical and stain resistance
- Good adhesion, especially for wood
- Non-yellowing

SPECIFICATIONS

| | VALUE |
|----------------------------|--------------|
| Acid Value, mg KOH/g, max. | 10 |
| Appearance | Clear liquid |
| Color, Gardner scale, max. | 2 |
| Epoxy content, %, max. | 0.64 |
| Non-volatile matter, % | 53-57 |
| Viscosity, 23°C, cP/mPa·s | 1500-4500 |

TYPICAL PHYSICAL PROPERTIES⁽²⁾

| | |
|-----------------------------------|-------|
| Density, g/ml at 20°C | 1.07 |
| Flash Point (Pensky-Martens), °C | 22 |
| Hydroxyl value (solids), mg KOH/g | ≤200 |
| Viscosity, 25°C, cP/mPa·s | ~1700 |

TYPICAL CURED PROPERTIES⁽³⁾

| | |
|---|---------------|
| Tensile strength, psi (MPa) | 1421 (9.8) |
| Elongation at break, % | 0.4 |
| Young's Modulus, psi (MPa) | 341910 (2358) |
| Glass transition temperature, °C ⁽⁴⁾ | 115 |
| Persoz hardness, sec. | 243 |

PRECAUTIONS

Before using EBECRYL 1200, 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.

EBECRYL 1200 contains a flammable or combustible liquid and vapor. Consult the SDS for additional storage and handling recommendations.

See the SDS for the recommended storage temperature range for EBECRYL 1200.

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

(2) Typical property. Not measured.

(3) EB cured, 50 kGy (5 Mrad), 250 keV, 75 µm free film

(4) Determined by Dynamic Mechanical Analysis; max. tan delta.

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