

# EBECRYL® 4857

Aliphatic Urethane Acrylate

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## INTRODUCTION

EBECRYL 4857 is a low viscosity, monomer free aliphatic urethane diacrylate which exhibits good flexibility in UV or EB cured films. The resin is designed to exhibit low yellowing and good exterior durability. Due to its low T<sub>g</sub> the product is suitable for applications requiring haptic properties (e.g. “soft touch/feel”).

EBECRYL 4857 is compatible with variety of fillers, pigments, waxes, and polymeric beads allowing formulator maximum formulating latitude to create a number of haptic properties ranging from a smooth, silky to peachy feel.

## PERFORMANCE HIGHLIGHTS

EBECRYL 4857 is characterized by:

- Low viscosity for handling ease
- Light color
- Low yellowing

UV/EB cured products based on EBECRYL 4857 are characterized by the following performance properties:

- Good flexibility
- Rubbery feeling
- Good weathering resistance

The haptic properties of UV/EB cured formulations containing EBECRYL 4857 will depend on the selection of the other formulation components, such as co-resins, suitable additives, reactive diluents and photoinitiators.

## SUGGESTED APPLICATIONS

Formulated UV/EB curable products containing EBECRYL 4857 may be applied by spray coating, screen, roller and curtain coating methods.

EBECRYL 4857 is recommended for use in:

- Haptic coating on wood and plastics
- Flexible coatings
- Exterior durable coatings

## TYPICAL PHYSICAL PROPERTIES

	VALUE
Color, Pt-Co scale	<100
Density, g/ml at 25°C	1.16
Functionality, theoretical	2
Oligomer, % by weight	100
Viscosity, 25°C, cP/mPa·s	~2000
	100

## TYPICAL CURED PROPERTIES<sup>(1)</sup>

Tensile strength, psi (MPa)	334 (2.3)
Elongation at break, %	23
Young's modulus, psi (MPa)	1813 (12.5)
Glass transition temperature, °C	4

## PRECAUTIONS

Before using EBECRYL 4857, 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 4857.

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

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