

# EBECRYL® 885

## Polyester Triacrylate

### INTRODUCTION

EBECRYL 885 is a trifunctional polyester acrylate oligomer. Films of EBECRYL 885 cured by ultraviolet light (UV) or electron beam (EB) exhibits high flexibility and excellent abrasion resistance. EBECRYL 885 is recommended for parquet floor coating, wood furniture coating applications and flexible coatings for metal.

### PERFORMANCE HIGHLIGHTS

EBECRYL 885 is characterized by:

- Moderate viscosity
- Good reactivity

UV/EB curable formulated products containing EBECRYL 885 are characterized by:

- Excellent abrasion resistance
- High flexibility

The actual properties of UV/EB cured products also depend on the selection of the other formulation components such as oligomers, additives and photoinitiators.

### SUGGESTED APPLICATIONS

EBECRYL 885 is recommended as for in:

- Parquet flooring
- Furniture coatings
- Metal coatings
- Plastic coatings
- Resilient flooring

### SPECIFICATIONS<sup>(1)</sup>

	VALUE
Acid value, mg KOH/g, max.	15
Appearance	Clear pale yellow liquid
Color, Gardner scale, max.	2
Viscosity, 25°C, cP/mPa·s	30000-45000

### TYPICAL PHYSICAL PROPERTIES

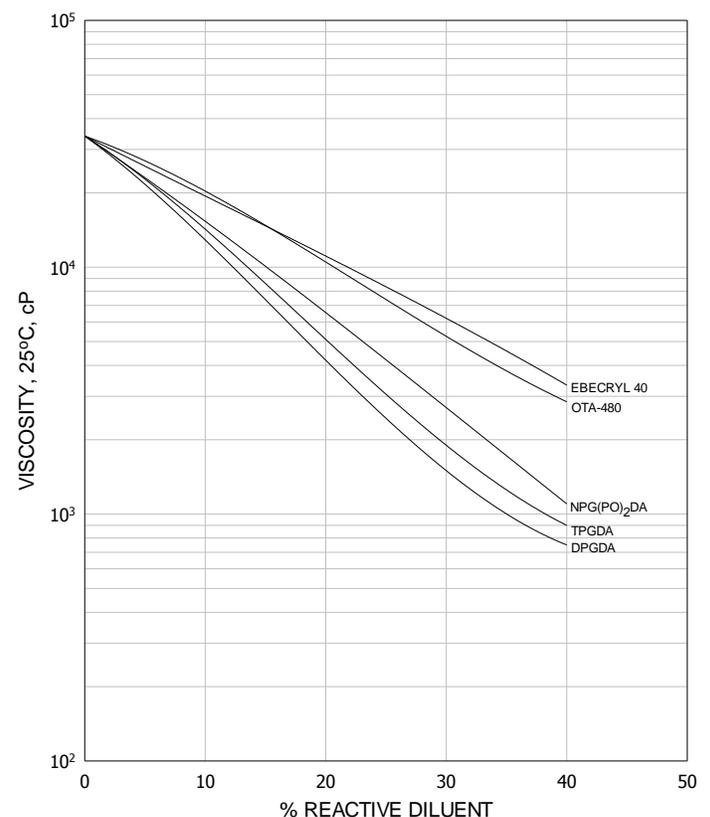
Density, g/ml at 25°C	1.19
Flash point, Setaflash, °C	>100
Functionality, theoretical	3
Oligomer, % by weight	100

### TYPICAL CURED PROPERTIES<sup>(2)</sup>

Tensile strength, psi (MPa)	508 (3.5)
Elongation at break, %	44
Young's modulus, psi (MPa)	2654 (18)
Glass transition temperature, °C	21

### GRAPH I

EBECRYL 885 - VISCOSITY REDUCTION WITH REACTIVE DILUENTS



(1) Test methods available upon request.

(2) Determined on UV cured 80 μ thick films

## VISCOSITY REDUCTION

Graph I shows the viscosity reduction of EBECRYL 885 with 1,6-dipropylene glycol diacrylate (DPGDA)<sup>(1)</sup>, neopentyl glycol propoxylate diacrylate (NPG(PO)<sub>2</sub>DA)<sup>(1)</sup>, tripropylene glycol diacrylate (TPGDA)<sup>(1)</sup> propoxylated glycerol triacrylate (OTA-480)<sup>(1)</sup> and EBECRYL 40<sup>(1)</sup>. 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, thus reducing solvent emissions. The specific reactive diluents used will influence performance properties such as hardness and flexibility.

## STORAGE AND HANDLING

Before using EBECRYL 885, consult the **Safety Data Sheet** for additional information on safety and handling procedures, and recommended personal protective equipment.

The recommended storage temperature range for EBECRYL 885 is 4°C to 40°C (39°F to 104°F). 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.

## PRECAUTIONS

Avoid contact with eyes and skin. Direct contact with this material may cause moderate eye and skin irritation. Contact with skin may cause a cross-allergic reaction in persons already sensitized to acrylate materials. Wash thoroughly after handling. Keep container tightly closed. Use with adequate ventilation.

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

(1) Product of Allnex

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