

### URETHANE ACRYLATE OLIGOMER

#### INTRODUCTION

EBECRYL® 8896 is a revolutionary aliphatic urethane acrylate designed for application(s) requiring haptic properties (e.g. "soft touch/feel"). Films of EBECRYL® 8896 cured via exposure to ultraviolet light (UV) or electron beam (EB) are tough, flexible, and resistant to yellowing. EBECRYL® 8896 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 velvety/silky feel to EBECRYL® 8896's intrinsic rubbery feel.

#### PERFORMANCE DATA

UV/EB cured products based on EBECRYL® 8896 are characterized by the following performance properties:

- rubbery feeling
- high flexibility
- good abrasion resistance

The haptic properties of UV/EB cured formulations containing EBECRYL® 8896 will depend on the selection of the other formulation components, such as co-resins, suitable additives, reactive diluents and photo initiators.

#### SUGGESTED APPLICATIONS

Formulated UV/EB curable products containing EBECRYL® 8896 may be applied by spray coating, screen, roller and curtain coating methods.

EBECRYL® 8896 is recommended for use in:

- haptic coating on plastics and films
- flexible coatings
- in-mold decoration

#### PHYSICAL PROPERTIES

Appearance	waxy product
C&P viscosity at 25°C, mPa.s	around 10000
Density, g/cm <sup>3</sup> at 25°C	1.06
Color, Gardner (50°C)	max. 1
Functionality, theoretical	3
Polymer solids, % by weight	80
Butyl acetate, % by weight	20

#### TYPICAL CURED PROPERTIES

Young's modulus, MPa	10
Tensile strength, MPa	3.3
Tensile elongation, %	50
Glass transition temperature, °C	-26

#### STORAGE AND HANDLING

Care should be taken not to expose radiation curable products to temperatures exceeding 40°C for prolonged periods or to direct sunlight. This might cause uncontrollable polymerization of the product with generation of heat.

Storage and handling should make use of stainless steel, amber glass, amber polyethylene or baked phenolic lined containers. Do not store this material under an oxygen free atmosphere.

Use dry air to displace material removed from the container. This material should not be stored for more than 2 years.

#### PRECAUTION

The following is a summary of the precautions to be taken when handling this product. Please refer to the Safety Data Sheet for further details.

The toxicological properties of this material have not been fully determined. Products of this type can be expected to be eye and skin irritant and have the potential to cause sensitization or other allergic responses. Appropriate precautions should be taken to avoid eye and skin contact and to avoid inhalation of the aerosols or vapours. Consult the relevant Safety Data Sheet for appropriate handling procedures and protective equipment prior to using this or any other material referred to in this bulletin.

See the Safety Data Sheet for emergency and first aid procedures.

#### STATUTORY LABELING

Please refer to Safety Data Sheet.