

UCECOAT[®] 6558 Aliphatic Urethane Acrylate Solution

INTRODUCTION

UCECOAT 6558 is an aliphatic urethane acrylate solution in water developed specifically for wood coating applications. Films containing UCECOAT 6558 cured by ultraviolet light (UV) or electron beam (EB) demonstrate good adhesion to a variety of wood types, along with good flexibility, resistance to yellowing, and a desirable visual aspect on wood. UCECOAT 6558 based coatings can be re-coated after curing.

PERFORMANCE HIGHLIGHTS

UCECOAT 6558 is characterized by:

- Milky appearance
- Moderate viscosity

UV/EB cured products based on UCECOAT 6558 are characterized by the following performance properties:

- Good adhesion
- Excellent flexibility
- Resistance to yellowing

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

SUGGESTED APPLICATIONS

Formulated UV/EB curable products containing UCECOAT 6558 may be applied via direct or reverse roll coating methods. UCECOAT 6558 is recommended for:

- Wood coatings

SPECIFICATIONS

Appearance

SMT⁽¹⁾

002-A

VALUES

Clear to clouded liquid

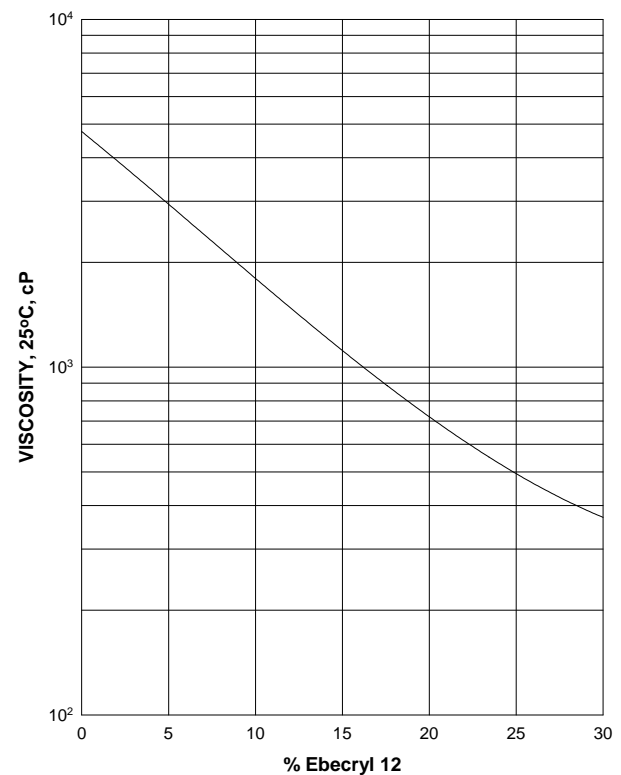
TYPICAL PROPERTIES

Density, g/ml at 25°C	1.09
Functionality	2-3
Solid content, % by weight	49-51
Viscosity at 25°C, cP	<4500

VISCOSITY REDUCTION

Increasing the water content of UCECOAT 6558 can decrease stability. For viscosity reduction of UCECOAT 6558, the addition of EBECRYL[®]* 12 as a reactive diluent is recommended. EBECRYL 12 is a low viscosity trifunctional polyether acrylate that is partially water-soluble.

Graph I
UCECOAT 6558
Viscosity Reduction with EBECRYL 12



(1) Standard Methods of Testing available upon request.



STORAGE AND HANDLING

Before using *UCECOAT* 6558, consult the **Material Safety Data Sheet** for additional information on hazards, handling procedures, and recommended protective equipment.

The recommended storage temperature range for *UCECOAT* 6558 is $\geq 4^{\circ}\text{C}$ (39°F) to $\leq 40^{\circ}\text{C}$ (104°F). Prolonged storage and exposure to temperatures $>40^{\circ}\text{C}$ can cause phase separation in *UCECOAT* 6558. Such phase separation is reversible and the material should be re-homogenized with agitation prior to use. *UCECOAT* 6558 should not be stored for more than 6 months at 25°C . Protect from freezing.

In order to avoid potential stability problems, the further addition of water to *UCECOAT* 6558 is not recommended.

High temperature and fire conditions can cause uncontrolled polymerization with rapid evolution of heat and pressure rise, which may result in violent rupture of the storage tanks or containers. Never store in direct sunlight or adjacent to heated compartments. Containers should be kept closed and away from oxidizing agents, acids, alkalies, peroxides, free radical initiators, photosensitizers, rust, and x-ray or ultraviolet radiation. Do not store this material under an oxygen free atmosphere. Use dry air to displace material removed from the container.

PRECAUTIONS

Avoid contact with skin and eyes and breathing vapors. Contains materials that may cause irritation to the eyes and skin. Sensitization may occur. Skin irritation may not occur immediately and contact may go unnoticed for up to 48 hours. Solvents should not be used to clean skin because of increased penetration potential. Contaminated clothing, shoes, belts and other leather goods should be removed immediately. Incinerate contaminated leather goods, including shoes. Wash contaminated clothing thoroughly before reuse.

Please refer to the Cytec **Guide to Safety and Handling** for additional information on the safe handling of acrylates.

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UCECOAT 6558 3/7/2007