

RADIATION CURABLE POLYURETHANE DISPERSION

**INTRODUCTION**

UCECOAT® 7690 is a Tin free radiation curable polyurethane dispersion with an excellent outdoor durability. It can be used in varied exterior applications and on a wide array of substrates. The product is tack-free after water evaporation and has an excellent water release. Because of its non-irritant nature and low viscosity, it can be applied safely by spray, roller and curtain coating.

**PERFORMANCE HIGHLIGHTS**

UCECOAT® 7690 is characterized by:

- Translucent appearance
- Low viscosity
- Tack-free after water evaporation
- Excellent water release

UV/EB cured products based on UCECOAT® 7690 are characterized by the following performance properties:

- Excellent outdoor resistance
- High flexibility
- Good chemical resistance

The actual properties of UV cured products also depend on the selection of the other formulation components, such as additives and photo initiators.

**SUGGESTED APPLICATIONS**

Formulated UV curable products containing UCECOAT® 7690 may be applied by spray-, roller- and curtain coating methods.

UCECOAT® 7690 is recommended as binder in applications demanding excellent outdoor properties.

**TYPICAL VALUES**

Brookfield Viscosity at 25°C, mPa.s	max. 500
Appearance	translucent liquid

**PHYSICAL PROPERTIES**

Density at 25°C, g/cm³	approx. 1.1
Particle size, nm	< 100
MFFT, °C	6
Solid content, % by weight	approx. 35
pH	7.0 - 8.5
Tg, °C, UV cured	96
Elongation, %, UV cured	15
Hardness Persoz, UV cured	NA

**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. Due to presence of water, UCECOAT® 7690 needs to be stored above freezing temperatures.

Storage and handling should be in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers. Do not store this material under an oxygen free atmosphere. This material should not be stored for more than 1 year.

**PRECAUTIONS**

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 Safety Data Sheet for emergency and first aid procedures.

**STATUTORY LABELING**

Please refer to Safety Data Sheet.