

Polyurethane Acrylate Dispersion

INTRODUCTION

UCECOAT® 7230 is a UV/EB energy curable polyurethane dispersion with low tack before cure and after water evaporation. It has been developed for high hardness top coats on plastics, wood and other substrates, including both transparent and pigmented. UCECOAT® 7230 demonstrates good colloidal stability and compatibility with other waterborne polymers. It has a very high reactivity. The cured coating exhibits high gloss and very high hardness, abrasion resistance, chemical resistance, as well as good adhesion on plastics.

PERFORMANCE HIGHLIGHTS

UCECOAT® 7230 is characterized by:

- High reactivity
- Low tack after water evaporation and before UV curing
- Good substrate wetting
- Good compatibility with other waterborne resins
- Good colloidal stability

UV/EB cured films based on UCECOAT® 7230 are characterized by the following performances:

- Very high hardness
- High gloss
- Good adhesion on plastics such as PC, ABS, PC, ABS
- Excellent abrasion resistance.
- Excellent chemical resistance.
- Good orientation of metallic flake pigment
- Low yellowing

The actual properties of UV cured films also depend on the selection of the other formulation components.

SUGGESTED APPLICATIONS

Formulated UV curable products containing UCECOAT® 7230 may be applied by spray, curtain, T-bar as well as several roll coating methods.

UCECOAT® 7230 is recommended for use in:

- Clear topcoat for plastics and wood applications
- Metallic and pigmented mono-coats
- Inks

TYPICAL PROPERTIES

Appearance	Milky emulsion
Density, g/ml at 25°C	1.05
MFFT, °C	< 10
Particle size, nm	< 150
pH	6.0-8.0
Solids content, % by weight	40.5 - 43.5
Viscosity at 25°C, mPa.s	< 200

PRECAUTIONS

Before using UCECOAT® 7230, see the Safety Data Sheet for information on the identified hazards of the material and the recommended personal protective equipment and procedures.

STORAGE AND HANDLING

Protect the product from freezing. Care should be taken not to expose the product to high temperature conditions or direct sunlight. Containers should be kept closed and away from materials that react with water. Bacteriological contamination can occur if the product is stored for an extended period in a container which is not sufficiently sealed or clean. Storage and handling should be in stainless steel, amber glass, or amber polyethylene containers. After prolonged storage product can settle and may require agitation to re-disperse. This product is stable under normal conditions of handling and storage. Do not store this material under an oxygen free atmosphere. Wash thoroughly after handling. Use with adequate ventilation.

See the SDS for the recommended storage temperature range for UCECOAT® 7230.