



### UVEXS Incorporated

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The brightest ideas in UV curing

# 451 SERIES

UV Curable Dome Coatings

### DESCRIPTION

A durable, abrasion resistant coating with moderate flexibility for creating protective dome coatings over graphic emblems and nametags. The physical characteristics are similar to conventional drying urethanes where impact and tear resistance are desired, and flexible "memory" of the coating maintains original integrity of the coating surface. Cures rapidly under high intensity UV energy. The single part formula contains no solvents and remains water white clear when cured. Viscosity of the coating allows hand or automated dispensing, and may be temperature controlled to create various dome heights and flow out rates. Adhesion is very good to vinyl, metalized and painted surfaces, and other plastics.

451A (previous number: 601-37-M)

### CURE SCHEDULE

Expose with a medium pressure mercury vapor type lamp operating at a minimum of 200 watts per inch input power:

Minimum required intensities\*: 30 mW/cm<sup>2</sup> @ 254 nm  
120 mW/cm<sup>2</sup> @ 365 nm

Exposure time: <6 seconds, depends on application thickness.

\*Using a UVEXS PM 600 radiometer.

### STORAGE AND HANDLING

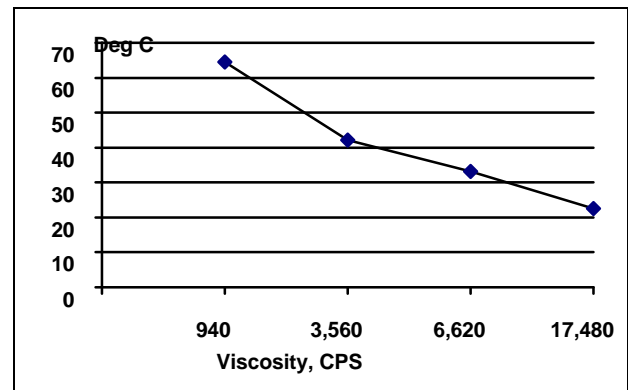
Shelf life is warranted for a minimum of 6 months from date of shipment when stored in darkness at 50-75°F, in its original container.

Avoid contact with skin and eyes as directed on the MSDS. Use with adequate ventilation. Clean uncured material from work surfaces and dispensing equipment with standard solvents (IPA, MEK or acetone).

### APPLICATION

451 Series coatings are supplied in liter, gallon or 5 gallon pails. Apply the coating to flat panels and decals using hand or automated (X-Y) dispensing equipment compatible with UV curable photopolymers. Surfaces should be free of dust or oily residues for maximum adhesion. Recommended application thickness is 30 to 100 mils.

Viscosity control: by heating the coating prior to or during the dispensing phase, viscosity can range as required to provide the flow out and dome height desired. Use the following chart as a guide.



### UNCURED PROPERTIES

Base resin:	urethane acrylate
Solids:	100%
Components:	one, no solvents
Color:	clear, water white
Odor:	mild
Specific gravity:	1.01
Flash point:	>200°F
Viscosity*:	17,500 cps

\*Brookfield Model LVF, 20°C

### CURED PROPERTIES

Hardness:	55 (shore D)
Elongation:	40%, at break
Tensile:	1800 psi, at break
Gloss factor:	60°: 85+