

# SilForce™ UV9400 Release Coating

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#### Description

SilForce UV9400 release coating is a cycloaliphatic epoxy-functional linear polydimethylsiloxane polymer developed for photocurable release coating applications. UV9400 is blended with UV9380C or UV9390C photocatalyst prior to use, and is then applied to plastic or paper substrates using standard solvent-free silicone coating techniques. Catalyzed UV9400 coatings are rapidly crosslinked on exposure to focused ultraviolet light. The UV9400 polymer structure is designed to provide a highly crosslinked coating with minimal migration to PSA's laminated to cured UV9400 coatings. UV9400 provides easy release from most acrylic and rubber based pressure sensitive adhesives.

#### **Key Features and Benefits**

- Fast UV cure in air environment (inerting not required)
- Low temperature cure, ideal for thermally sensitive plastic and film liners
- Highly crosslinked coating, low silicone transfer
- Low, stable release from crosslinkable acrylic and SBR adhesives
- Flat Release Profile
- Nontoxic, low viscosity fluid easy to handle and use

#### **PERFORMANCE**

Properly coated and cured UV9400 release coatings provide easy, stable aged release from a wide variety of acrylic and SBR adhesives. Typical product performance is

# displayed in Figures 1 and 2.

Figure 1

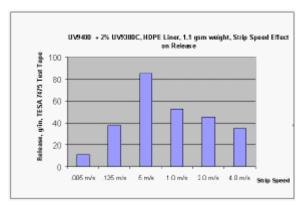
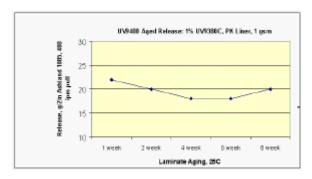


Figure 2



**Typical Physical Properties** 

Property	UV9400 Polymer
Viscosity, 25° C	225 cstk
Solids*  *(150° C weight loss)	> 99%
Epoxy Equivalent Weight (g/mole oxirane)	1700

### **Patent Status**

Nothing contained herein shall be construed to imply the nonexistence of any relevant

patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

### **Product Safety, Handling and Storage**

UV9400, UV9380C and UV9390C will retain original properties for 12 months from date of shipment from Momentive Performance Materials when stored in original container at 25°C. Care must be taken to prevent inadvertant contamination by other chemicals including strong acids or bases, tin and titanium metal driers, water, amines and phosphorus compounds. UV9400 is not considered toxic, but best industrial hygeine practice is recommended for safe handling and use of the polymer, including eye protection and protective clothing to minimize skin contact.

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

### **Processing Recommendations**

#### **BATH PREPARATION AND USE**

100 parts of Silforce UV9400 are thoroughly mixed with 1 to 3 parts of UV9380C or UV9390C prior to use. In general, 1-2 parts of photocatalyst are recommended for film and plastic substrates, and 2-4 parts catalyst are needed for good cure on paper and glassine liners. At least 10 minutes' vigorous agitation is recommended to thoroughly disperse photocatalyst in UV9400. The catalyzed bath will appear hazy because the active iodonium ingredient of UV9380C is not completely miscible in UV9400 polymer, but the bath is sufficiently stable to permit at least a day's use without further agitation.

If a catalysed bath is allowed to stand undisturbed for more than a day, some catalyst will be observed to settle out of the mixture, necessitating thorough remixing before reuse. Properly cured coatings of UV9400/UV9380C will provide easy release from most acrylic and SBR adhesives. Differential release can be achieved by blending UV9400 with UV9430 controlled release polymer.

#### Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

## **Availability**

The products are available in the following containers:

Product	1 Gal	5 Gal	55 Gal
UV9400			182 kg (400 lbs)
UV9380c			18.2 kg (40 lbs)

#### **Contact Information**

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For literature and technical assistance, visit our website at: www.momentive.com

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