

SilForce™ UV9300 Release Coating

SilForce* UV9300 Release Coating

Description

SilForce UV9300 release coating is an epoxide-functional polydimethylsiloxane copolymer designed for use as a photocurable release agent. UV9300 is mixed with UV9380C or UV9390C photocatalyst prior to use, and is then applied to film or paper substrates by means of standard solvent-free silicone coating techniques. Catalyzed UV9300 coatings are rapidly crosslinked on exposure to focused ultraviolet light. The proprietary UV9300 polymer structure includes non-functional linear polydimethyl siloxane chains which provide easy release from most pressure sensitive adhesives, but is also sufficiently rich in reactive epoxy groups to insure fast photocure response and good photocatalyst compatibility.

Key Features and Benefits

- Fast UV cure in presence of oxygen (inerting of cure chambers not required)
- Low temperature cure (ideal for thermally sensitive film and plastic liners)
- Stable, easy aged release from most acrylic and rubber based PSA's
- Long, stable catalyzed bathlife at room temperature in the dark
- Non-hazardous coating baths, easy to handle and use

Properly coated and cured UV9300 release coatings provide easy, stable aged release from most organic acrylic and rubber based PSA's. Typical release performance data are displayed in Figures 1 and 2. Performance is largely determined by substrate and adhesive and is always application-specific.

FIGURE 1.

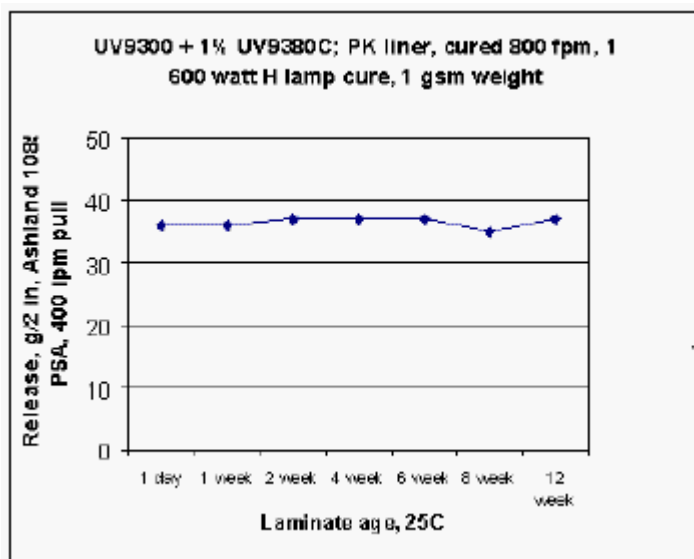
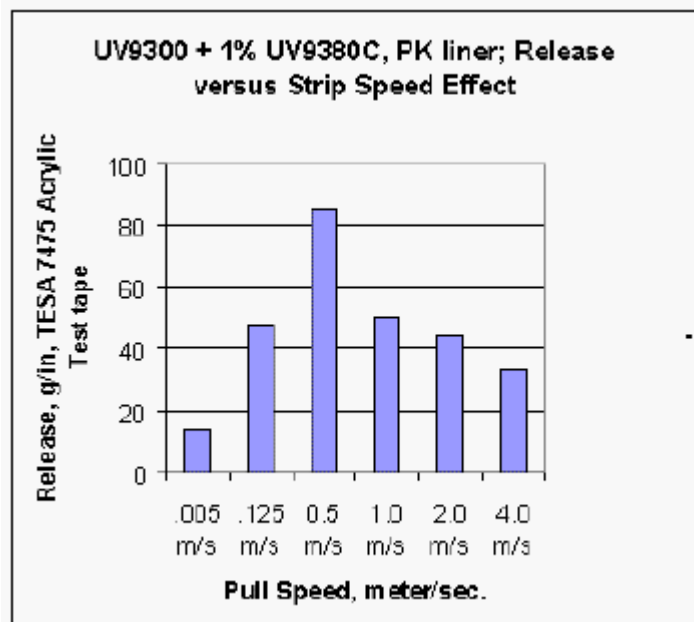


FIGURE 2



Typical Physical Properties

Property	UV9300 Polymer
% Solids*	> 99%
Viscosity, cstks @ 25°C	300 cstks @ 25°C
Epoxy Equivalent Weight**	950 grams/mole oxirane
Specific Gravity	0.99
Potentiometric titre	
*(150° C weight loss)	

Potential Applications

SUBSTRATES

SilForce UV9300 is most commonly coated on glossy plastic liner materials including polyethylene, polypropylene, polyester, and polystyrene, and on laminate liner constructions such as polyethylene and polypropylene krafts. Best cure and anchorage are achieved by use of plastic liners which are free of mobile plasticizers and slip agents, and by application of in-line corona treatment to at least 40 dynes/cm level prior to coating. Flame-treated, chemically-treated or films otherwise modified to aid silicone anchorage are also widely used to produce UV silicone release liners. UV9300 can also be applied to certain paper and glassine liner materials. Such substrates should have very good holdout properties, and should be acidic or neutral via sizing or other coating to insure a surface which is chemically compatible with cationic UV cure processes. Alkaline materials present in many commercial paper liners such as conventional SCK interfere with photocure and anchorage of UV9300. Thorough evaluation of compatibility of any prospective liner with UV9300 cure chemistry and anchorage is strongly advised before committing to commercial production with UV9300.

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

SilForce UV9300 epoxysilicone and UV9380C & UV9390C photoinitiators will retain their properties for up to 12 months from date of shipment from Momentive Performance Materials when stored in original sealed containers at or below 25°C. Silforce UV curable polymers and catalysts are reactive materials, so care must be taken to prevent inadvertent contamination with strong acids, bases, or oxidizing agents.

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

USE OF THE PRODUCT

UV9300 polymer is blended with UV9380C photocatalyst solution immediately before use. 1 to 3 parts of UV9380C are blended with 100 parts of UV9300, the precise formulation being dependent on substrate and application. 1-2 parts catalyst are normally sufficient for coating UV9300 on film or plastic laminate liners, such as polykraft, LDPE, OPP, and polyesters, while 2-3 parts of catalyst should be used when coating UV9300 on paper or glassine liners. Coating baths should be well-agitated for at least 10 minutes to completely disperse UV9380C in UV9300.

Limitations

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

Contact Information

Email

commercial.services@momentive.com

Telephone

Americas	Latin America	EMEAI- Europe, Middle East, Africa & India	ASIA PACIFIC
+1 800 295 2392	Brazil	Europe	China
Toll free*	+55 11 4534 9650	+390510924300	800 820 0202
+704 805 6946	Direct Number	Direct number	Toll free
Direct Number			+86 21 3860 4892

*All American countries	Mexico	India, Middle East & Africa	Direct number
	+52 55 2169 7670		Japan
	Direct Number	+ 91 44 71212207	+81 3 5544 3111
		Direct number*	Direct number
		*All Middle Eastern countries, Africa, India,	Korea
			+82 2 6201 4600

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

DISCLAIMER:

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY "SUPPLIER"), ARE SOLD SUBJECT TO SUPPLIER'S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER'S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Supplier's materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier's products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier's standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement

contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

*SilForce™ is a trademark of Momentive Performance Materials Inc.

The use of the "™" symbol designates registered or unregistered trademarks of Momentive Performance Materials Inc. or its affiliated companies. Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.