

SilForce* SL3842

Release coating for bitumen mastic



MARKETING BULLETIN

COATINGS

Silicone Release Coatings for Bitumen Mastic and Aggressive Adhesives

Introducing SilForce SL3842, a silicone release coating for filmic liner release from bitumen mastics and other aggressive and high tack adhesives used for building and construction, self-adhesive noise insulation, automotive damping, bitumen rolled roofing and roof shingle applications. Its key features and typical benefits include:

FEATURES

- Low release
- High temperature release
- Low initiation spike
- Smooth release
- Stable release
- Fast cure

BENEFITS

- Easy liner removal
- Easy liner removal on hot days
- Easy start of liner removal
- Non-zippy liner removal
- Shelf life stability
- Low temperature processing

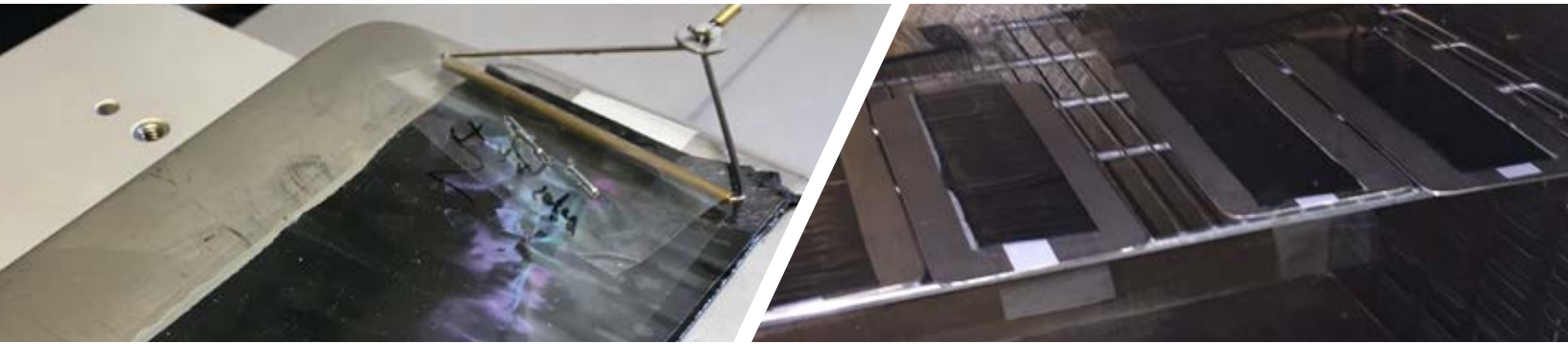
SilForce SL3842 release coating has inherently excellent reactivity, allowing low process temperature cure with temperature sensitive filmic substrates. A low SiH:SiV ratio can also be used to minimize residual hydride interaction with the aggressive adhesive. SilForce SL3842 release coating can also be applied to PET film along with the appropriate AnchorSil* PET anchorage additive.

SilForce SL3842 release coating is a polydimethylsiloxane addition-cure thermal solventless easy release polymer that is compounded as part of a multi-component system with a crosslinker and Pt catalyst.

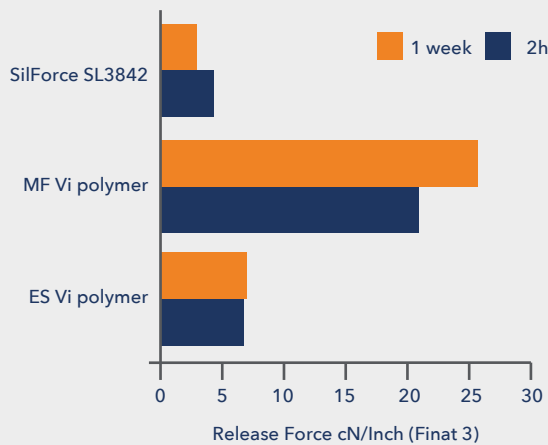
Potential applications include filmic liners used in building/construction, self-adhesive noise insulation, damping materials for the automotive, bitumen rolls, shingles and tiles for roofing.



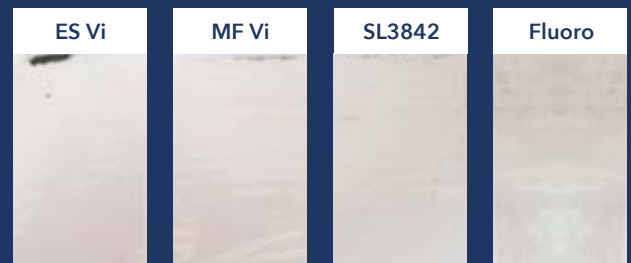
SilForce SL3842 release coating can be customized to your process, substrate and adhesive requirements. Reach out to a Momentive expert and let them help you design a solution today.



SilForce SL3842 release coating demonstrated lower room temperature and 60-80°C hot release from bitumen mastic as compared to typical vinyl end-stopped and multifunctional polymers.



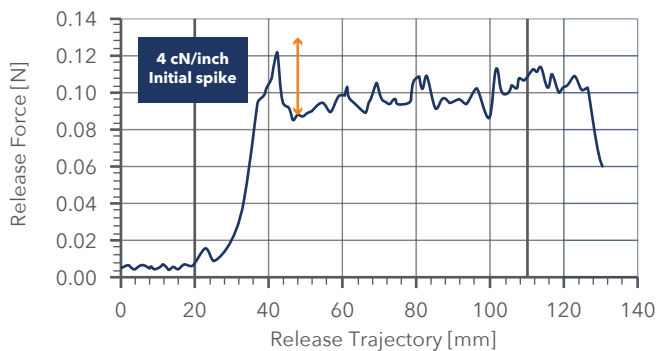
SilForce SL3842 release coating has delivered comparatively cleaner removal of the liner with lower levels of residual bitumen mastic remaining on the liner.



In testing, SilForce SL3842 release coating provided an almost 10X reduction in initiation spike and smoother release when delaminating the liner from bitumen mastic as compared to a typical vinyl end-stopped polymer.

SilForce SL3842 Release Coating

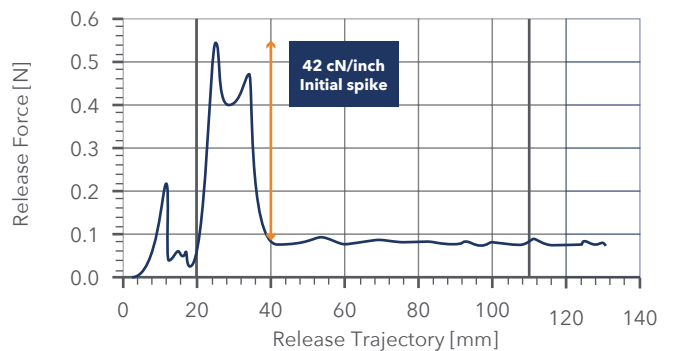
Average [N]	Minimum Value [N]	Maximum Value [N]	Average per cm	V [mm/min]
0.083	0.00488	0.121	0.0332	300



Test data and results. Actual results may vary.

ES Vi Polymer

Average [N]	Minimum Value [N]	Maximum Value [N]	Average per cm	V [mm/min]
0.131	0.0708	0.536	0.0525	300



A typical multi-component system is as follows:

SilForce SL3842	Base polymer
SilForce SL6020	Crosslinker
SilForce SL6210	Pt catalyst
AnchorSil* 2000	Adhesion promoter (PET)

SilForce SL3842 release coating can allow for a clear, optical coating, free of “orange peel” and other visual defects when optimized for the proper coating weight, corona treatment and substrate purity. Solvent can be used to enhance optics but only if the equipment is capable of handling solvents.

Sample SilForce SL3842 release coating starting point formulations¹:

SilForce SL3842	90	90
SilForce SL6020	5	4.2
SilForce SL6210	10	10
SiH/SiVi ratio	1.8	1.5

Depending on the type of adhesive, substrate and the processing conditions the formulation can be adapted. Contact a Momentive expert to help design the proper system. Please refer to a Momentive representative for getting the right guidance.

Starting recipe for film at two levels of crosslinker.

	PET film	HDPE film	CCK paper
SilForce SL3842	98.4	98	98
SilForce SL6020	4.2	4.8	4.8
SilForce SL6310	1.6	2	2
AnchorSil 2000	2	0	0

SilForce SL3842 release coating can be customized to your process, substrate and adhesive requirements. Reach out to a Momentive expert to help you design a solution for you today.

Starting recipe for film and paper liners (part by weight) AnchorSil 2000

About Momentive Performance Materials

Momentive Performance Materials Inc. (MPM), is a global leader in silicones and quartz and ceramics, with a 75-year heritage of being first to market with performance applications for major industries that support and improve everyday life. The company delivers science-based solutions by linking custom technology platforms to opportunities for customers. Momentive is headquartered in Waterford, New York, U.S. but its footprint spans the globe.

¹ Product formulations are included as illustrative examples only. Momentive makes no representation or warranty of any kind with regard to any such formulations, including, without limitation, concerning the efficacy or safety of any product manufactured using such formulations.

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