

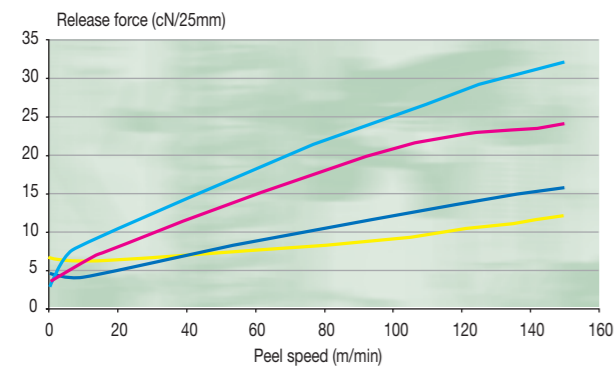
Solventless thermal curing chemistry is the standard technology for the majority of the label and liner industry. A 100% solids system raises fewer regulatory and safety concerns than a solvent based system as well as offering the most cost effective release coating process.

The SILCOLEASE® solventless thermal product range offers enormous flexibility to achieve the optimum performance in terms of cure speed,

anchorage or modification of release properties on a wide range of substrates. Particular features of the SILCOLEASE® range are:

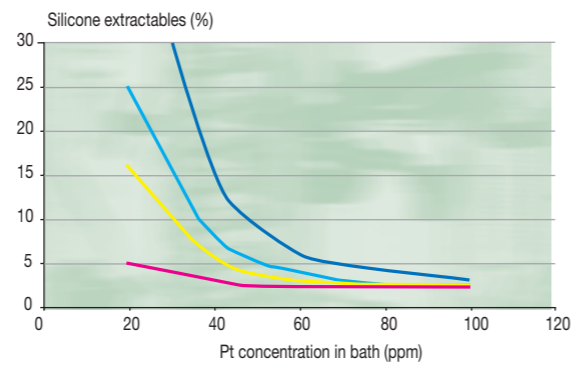
- Variety of polymers to meet all process needs (cure, release profile, coating technique, coverage)
- Release Control Additives for all applications and adhesives
- Range of crosslinkers to achieve optimal balance of cure and anchorage

SILCOLEASE® polymer selection for optimal release profile
Off-line lamination with acrylic PSA test tape
Glassine release base paper



- SILCOLEASE® 11367
- SILCOLEASE® 11365
- SILCOLEASE® 11384
- SILCOLEASE® 8500

Optima concept for reduction of Pt level
By combining machine conditions and the correct chemistry significant Pt reduction is possible.
In standard production conditions 50ppm are readily achievable via Optima concept formulations.



- 11367 + 97A (130°C web temp)
- POLY 360 + XL 321 (130°C web temp)
- POLY 360 + XL 321 (145°C web temp)
- POLY 360 + XL 321 (160°C web temp)

The Optima concept fine tunes your SILCOLEASE® system to meet ever increasing demands on production speeds and cost efficiency. Choose one component or an entire system to create the most economic formulation for all production conditions and applications.

Particular features of the SILCOLEASE® Optima concept:

- Platinum Reduction
- Mist Reduction at speeds up to 1600 m/min
- Low Temperature Curing (LTC).

Legal Disclaimer:

The information contained in this document is given in good faith and based on Bluestar Silicones current knowledge. Bluestar Silicones makes no representation or warranty as to the accuracy, completeness of such information or as to the compatibility of such information with the user's intended application: information is supplied on an "as-is" basis and is not binding on Bluestar Silicones. Nothing contained herein is intended as a recommendation to use the products so as to infringe any patent. Bluestar Silicones assumes no liability for users' violation of patent or other rights and disclaims any liability for loss, injury or damage which may result from the use of the products. Therefore, information contained herein must not be used as a substitute for necessary prior tests which are the sole responsibility of the user and which alone can ensure that a product is suitable for a given use.

Bluestar Silicones France SAS

21, avenue Georges Pompidou
F-69486 Lyon Cedex 03 - France
Tel: +33 (0)4 72 13 19 00 - Fax: +33 (0)4 72 13 19 88
www.bluestarsilicones.com



Solventless Thermal Range

SILCOLEASE® release coatings
...using science to a fine art

All the names mentioned are registered trademarks.

SIGNATURE GRAPHIQUE - FOTO: PHOTODISC

SIL 07 004 3 1 Thermal

General Purpose range

SILCOLEASE® PRODUCTS	PRODUCT REFERENCE	VISCOSITY (mPa.s)	FEATURES
POLYMER	11362	~ 200	<ul style="list-style-type: none"> Low viscosity polymer Low misting High reactivity Excellent coating performance at high speed
	11364	~ 450	<ul style="list-style-type: none"> Excellent release against hot melts and aggressive adhesives Flat release profile Excellent anchorage on film
	11365	~ 650	<ul style="list-style-type: none"> Medium high viscosity polymer High reactivity Good solution vs aggressive hot melts High FTM4 with very low FTM3
	11367	~ 230	<ul style="list-style-type: none"> Low viscosity polymer Low misting Good reactivity Excellent general purpose system with high abrasion resistance Flat release profile
	8500	~ 350	<ul style="list-style-type: none"> Medium viscosity polymer High reactivity Good solution vs aggressive hot melts
	11384	~ 400	<ul style="list-style-type: none"> Medium viscosity polymer Tight low speed release with very flat release profile High vinyl content gives very hard film with low coefficient of friction
RELEASE CONTROL ADDITIVE	RCA 12	~ 300	<ul style="list-style-type: none"> Mainly for in-line applications Effective at small addition levels vs most permanent acrylic and HM adhesives Alpha-olefin free
	RCA 12045	~ 1200	<ul style="list-style-type: none"> For in-line and off-line applications General Purpose modifier for most adhesive and label applications Alpha-olefin free
	RCA 394	~ 900	<ul style="list-style-type: none"> Mainly for off-line applications High resin content Low zipping High release efficiency (particularly vs acrylic adhesives)
CROSSLINKER	96A	~ 25	<ul style="list-style-type: none"> Homopolymer SiH crosslinker Excellent abrasion resistance on wide range of substrates Low adhesive interaction potential
	97A	~ 30	<ul style="list-style-type: none"> Standard blended crosslinker with excellent balance between reactivity and anchorage properties
	12031	~ 45	<ul style="list-style-type: none"> Standard co-polymer crosslinker with fast cure Good compromise of reactivity with acceptable abrasion resistance on most standard substrates
CATALYST	11091M	~ 300	<ul style="list-style-type: none"> Standard Pt catalyst
	12070	~ 300	<ul style="list-style-type: none"> Standard Pt catalyst

Optima concept

SILCOLEASE® PRODUCTS	PRODUCT REFERENCE	VISCOSITY (mPa.s)	FEATURES
POLYMER	POLY 360	~ 100	<ul style="list-style-type: none"> Low viscosity polymer for high speed coating Low misting, high reactivity & excellent coating performance Flat release profile
	POLY 8560*	~ 350	<ul style="list-style-type: none"> Medium viscosity polymer for LTC or reduced Pt levels Premium release forces Excellent effect of RCA range for tighter release force
RELEASE CONTROL ADDITIVE	RCA 395	~ 900	<ul style="list-style-type: none"> For in-line and off-line applications Very low extractables Low zipping with excellent aged release stability High release efficiency against all adhesives
	RCA 396	~ 1200	<ul style="list-style-type: none"> LTC performance for in-line and off-line applications Very low extractables Very good release stability Alpha-olefin free
	RCA 397	~ 1600	<ul style="list-style-type: none"> LTC performance mainly for in-line applications Very low extractables High efficiency with speciality PSA (Deep Freeze, Removable etc.) Alpha-olefin free
CROSSLINKER	XL 319	~ 25	<ul style="list-style-type: none"> LTC Only for LDPE coated Kraft (or with anchorage additive)
	XL 320	~ 25	<ul style="list-style-type: none"> LTC compromise with good anchorage
	XL 321	~ 25	<ul style="list-style-type: none"> For reduction of Pt content Excellent compromise reactivity/anchorage
PERFORMANCE ENHANCEMENT	CATA 346*	~ 1000	<ul style="list-style-type: none"> Eliminates silicone mist up to speeds of 1600m/min Pre-mixed with Pt catalyst
	CATA 347	~ 1000	<ul style="list-style-type: none"> Eliminates silicone mist up to speeds of 1600m/min Pre-mixed with Pt catalyst for Low Pt formulations
	MRA 745	~ 1000	<ul style="list-style-type: none"> Eliminates silicone mist up to speeds of 1600m/min Diluted MRA for accurate dosing
	MRA 385*	~ 2000	<ul style="list-style-type: none"> Eliminates silicone mist up to speeds of 1600m/min Concentrated formulation of latest generation MRA Efficient with high RCA contents
	CATA 340*	~ 2000	<ul style="list-style-type: none"> Eliminates silicone mist up to speeds of 1600m/min Pre-mix of latest generation MRA & Pt catalyst Efficient with high RCA contents

* Development Product (discuss availability with your technical or sales contact)

Performance Enhancement

SILCOLEASE® PRODUCTS	PRODUCT REFERENCE	VISCOSITY (mPa.s)	FEATURES
POLYMER	POLY 363*	~ 500	<ul style="list-style-type: none"> Very low co-efficient of friction
	POLY 366*	~ 450	<ul style="list-style-type: none"> Very flat release profile for label applications Excellent cure on kraft papers - excellent for graphic applications Low co-efficient of friction
	POLY 330*	~ 750	<ul style="list-style-type: none"> Optimised polymer for coating onto PET film Possible to use without anchorage additive Flat release profile
	POLY 334*	~ 400	<ul style="list-style-type: none"> Optimised polymer for coating onto PET film Easy release - suitable for tackified adhesive
CROSSLINKER	XL 323	~ 25	<ul style="list-style-type: none"> Optimised anchorage for difficult substrates
PERFORMANCE ENHANCEMENT	ADD 383*	-	<ul style="list-style-type: none"> Low friction additive, reduces blocking, reduces back side transfer and improves printability.
	ADD 380*	40	<ul style="list-style-type: none"> Additive for PET film coating Improves long term anchorage in high humidity conditions Improves anchorage Vs difficult adhesives

* Development Product (discuss availability with your technical or sales contact)