



Technical Data Sheet

SILASTIC™ LTC 9400 Acceleration Additive

Cure acceleration additive for use with SILASTIC™ LTC 9400 series Liquid Silicone Rubber

Features & Benefits

- Further accelerates curing speed, and reduces curing onset temperature of SILASTIC™ LTC 9400 series Liquid Silicone Rubber
- Allows to customize curing profile for optimum process cycle times
- Reduces sensitivity to temperature gradients in injection molding
- Food contact: Formulated to meet requirements of BfR XV recommendation and of FDA 21 CFR 177.2600

Applications

SILASTIC™ LTC 9400 Acceleration Additive is a cure acceleration additive specifically developed to customize curing speed of SILASTIC™ LTC 9400 series Liquid Silicone Rubbers. Its low viscosity and balanced reactivity enables addition through the 3rd stream injector during injection molding operations.

This product can be used in a wide range of applications, including but not limited to:

- General Liquid Silicone Rubber fabrication
- Molding of thick-walled articles
- Over-molding of sensitive components
- Co-molding of low melting plastics
- Food contact applications

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test ¹	Property	Unit	Result
	Appearance		Translucent
CTM 1094	Viscosity (10s ⁻¹)	Pa.s	11
ASTM D792	Specific gravity		0.97

1. ASTM: American Society for Testing and Materials. Materials were tested according to Dow Corporate Test Methods (CTM), which in most cases are similar to the ASTM standard(s) listed above. Copies for CTMs are available on request.

Description

SILASTIC™ LTC 9400 Acceleration Additive is a platinum catalyst formulation, specifically developed to customize curing speed of SILASTIC™ LTC 9400 series Liquid Silicone Rubbers. Addition of SILASTIC™ LTC 9400 Acceleration Additive to SILASTIC™ LTC 9400 series Liquid Silicone Rubbers can lead to:

1. Increased curing speeds at a given cure temperature, which can result in:
 - Cycle time savings
 - Faster deep-section cure of thick-walled articles
2. Cure temperature reduction, which can result in:
 - Energy savings
 - Capability to co-mold heat sensitive substrates
 - Capability to over-mold heat sensitive components

The reactivity of SILASTIC™ LTC 9400 Acceleration Additive is balanced for typical addition loadings of 1–3 weight % (see Table 1 below). The dosing level should be selected to meet the targeted reactivity requirements.

At the recommended low dosing levels of SILASTIC™ LTC 9400 Acceleration Additive little to no effects on the physical properties of the cured SILASTIC™ LTC 9400 series elastomers are observed. It remains the customer's responsibility to verify the impact in the end application.

Table 1: Cure Times

Cure times (Tc60) of SILASTIC™ LTC 9400-50 Liquid Silicone Rubber as a function of additive loading and curing temperature.

SILASTIC™ LTC 9400 Acceleration Additive Loading	Pot Life	Cure times Tc60 [sec] at temperature T [°C]				
		T=90°C	T=100°C	T=110°C	T=120°C	T=150°C
[Wt %]	[hrs]					
0	> 72	336	161	68	38	16
1	> 24	173	76	36	25	14
2	> 15	113	50	29	21	12
3	> 9	79	40	24	18	11

How To Use

Mixing

SILASTIC™ LTC 9400 Acceleration Additive should be added at typical amounts of 1–3 weight % to SILASTIC™ LTC 9400 series Liquid Silicone Rubber. The low viscosity of SILASTIC™ LTC 9400 Acceleration Additive allows addition to the LSR through the 3rd stream injector during injection molding. High precision meter mix equipment which pumps and meters the SILASTIC™ LTC 9400 Acceleration Additive into the LSR without incorporation of air is strongly recommended for production.

How To Use (Cont.)

Pot Life

When added to SILASTIC™ LTC 9400 series LSR the pot life will be temporarily reduced as a function of the SILASTIC™ LTC 9400 Acceleration Additive dosing level (see table). It is recommended to shut off addition of LTC 9400 Acceleration Additive a couple of injection cycles prior to terminating molding operations to restore 72 hrs pot life.

Cleaning

The uncured silicone can readily be removed by most hydrocarbon solvents. Polar solvents, such as ketones and alcohols are not suitable.

Regulatory Compliance

Food Contact

SILASTIC™ LTC 9400 Acceleration Additive is formulated to meet BfR XV recommendation and FDA 21 CFR 177.2600.

It remains the customer's responsibility to ensure Dow's products are suitable for customer's intended use and comply with all laws and regulations applicable to such use.

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

When stored at or below 35°C (95°F) in the original unopened containers, this product has a usable life of 15 months from the date of production.

Packaging Information

This product is supplied in lot 18 kg plastic pails.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health And Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, consumer.dow.com or consult your local Dow representative.

consumer.dow.com

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

