



Consumer Solutions

---

## Certified Solutions for Food and Beverage Processing

Gain efficiency with sealants from Dow

---





## Certified Solutions

High-performance materials from Dow are well-suited for food and beverage operations. Many products conform to critical food-production requirements, including NSF and FDA regulations.

DOWSIL™ silicone adhesives and sealants provide options for strong bonding and sealing, form-in-place gasketing, coatings, and hot-melt adhesives. Silicone-based sealants last longer and are more versatile than most organic polymer sealants. They cure at room temperature to a tough, rubbery solid with exceptional performance characteristics and meet a wide variety of your industrial bonding and sealing needs.



## Increase Performance. Reduce Service Repairs and Costs.

Efficiently operating food and beverage processing plants requires reliable industrial maintenance – with materials that meet critical industry regulations. You need durable adhesives and sealants to help reduce unplanned maintenance, products that remain stable under hot and cold temperatures. For maximum productivity, you need certified solutions from Dow.

Dow's experience and expertise can help you with solutions for:

- Mixers, ovens and equipment
- Pumping and wash systems, process tanks, filling and packaging/bottling lines, centralized lubrication systems, hydraulics/pneumatics, and sealing requirements

- Mixers, cooking/freezing chambers, conveyor systems, and packaging equipment
- Gearboxes, compressors and valves
- Reducing maintenance, downtime and repair expenses

Potential applications include:

- Baked goods and confectionaries
- Milk and beverage processing
- Meat-processing and meat-packing plants
- Food carton fabricators
- Food-canning operations
- Sugar mills



Silicone sealants by Dow are stable over a wide temperature range, typically from -70 to 350°F/-56 to 177°C (400°F/204°C intermittent), with still others capable of higher thermal stability up to and exceeding 500°F/260°C (600°F/315°C intermittent).

- Acetoxy sealants are competitively priced versus organics and offer fast cure. These one-part sealants offer good shelf life and adhesion durability, and they are available in clear and no-catalyst versions.
- Alkoxy sealants offer robust adhesion in a neutral-cure, low-VOC formulation; economical chalk-filled formulations are available.
- Hot-melt sealants provide instant green strength for immediate hold, which enables instant assembly – no “hold time” is required. These sealants have

a proven, neutral-cure 100% silicone chemistry with aggressive adhesion to a variety of substrates. The worker-friendly formulation has low odor and is nonhazardous, and it features a long pot life and long open time.

# DOWSIL™

silicones by 



**NSF Standards**

NSF 51	NSF 61	Acetoxy Sealants	Temperature Range <sup>1</sup> , °F/°C, Continuous (Intermittent)	Skin-Over Time, min	Tack-Free Time, min		Extrusion Rate, g/min	Durometer, Shore A	Tensile, PSI	Elongation	Specific Gravity	Color
•		DOWSIL™ 700 Industrial Grade Silicone Sealant	-70 to 350 (400)/-57 to 177 (204)	13	25		350	20	225	577	1.02	Aluminum, clear translucent, white, black
•	•	DOWSIL™ 732 Multi-Purpose Sealant	-70 to 350 (400)/-57 to 177 (204)	10	20		350	25	325	600	1.04	Aluminum, clear translucent, white, black
•		DOWSIL™ 733 Glass & Metal Sealant	-70 to 350 (400)/-57 to 177 (204)	10	15		350	25	335	500	1.03	Aluminum, clear translucent, white, black
•		DOWSIL™ 734 Flowable Sealant	-70 to 350 (400)/-57 to 177 (204)	7	13		650	27	222	315	1.03	Clear, white
•		DOWSIL™ 736 Heat Resistant Sealant	-85 to 500 (600)/-65 to 260 (315)	10	17		390	26	350	600	1.04	Red
•		DOWSIL™ 786 Silicone Sealant	-70 to 350 (400)/-57 to 177 (204)	5	20		350	25	325	600	1.04	Clear translucent, white
NSF 51	NSF 61	Alkoxy Sealant	Temperature Range <sup>1</sup> , °F/°C, Continuous (Intermittent)	Skin-Over Time, min	Tack-Free Time, min		Extrusion Rate, g/min	Durometer, Shore A	Tensile, PSI	Elongation	Specific Gravity	Color
•	•	DOWSIL™ 748 Non-Corrosive Sealant	-65 to 350 (400)/-55 to 177 (204)	15	30		150	25	275	350	1.33	Off-white
NSF 51	NSF 61	Hot-Melt Sealants	Specific Gravity	Viscosity @ 120°C, Pa-s	15-Minute Green Strength, MPa		Durometer, Shore A	Ultimate Tensile Strength, MPa	Ultimate Elongation, %	Tear Strength – Type B, pli	Peel Strength <sup>2</sup> , pli	SAFT3, °C
•	•	DOWSIL™ HM-2500 Assembly Sealant	1.08	200	0.06		49	4.8	1,900	80	>45	250
•	•	DOWSIL™ HM-2510 Assembly Sealant	1.08	110	0.04		38	4.6	1,900	78	>41	250
•	•	DOWSIL™ HM-2515 Assembly Sealant	1.07	27	0.004		14	2.3	1,500	57	>33	248
•	•	DOWSIL™ HM-2520 Assembly Sealant	1.11	110	0.03		31	6	1,500	89	>30	280

<sup>1</sup>Estimated service temperatures based on product formulation and laboratory testing. Actual service temperature range is dependent on other factors, including the specific application environment.

<sup>2</sup>180° peel from various substrates based on ASTM C794: 21-day cure (24 ±2°C; 50 ±5% RH) + 7-day H<sub>2</sub>O immersion.

<sup>3</sup>The maximum temperature limit may approach 260°C with no oxygen present.

**FDA Regulations**

21 CFR 175.300	21 CFR 175.2600	21 CFR 175.105	Acetoxy Sealants	Temperature Range <sup>5</sup> , °F/°C, Continuous (Intermittent)	Skin-Over Time, min	Tack-Free Time, min		Extrusion Rate, g/min	Durometer, Shore A	Tensile, PSI	Elongation	Specific Gravity	Color
	•		DOWSIL™ 700 Industrial Grade Silicone Sealant	-70 to 350 (400)/-57 to 177 (204)	13	25		350	20	225	577	1.02	Aluminum, clear translucent, white, black
	•		DOWSIL™ 732 Multi-Purpose Sealant	-70 to 350 (400)/-57 to 177 (204)	10	20		350	25	325	600	1.04	Aluminum, clear translucent, white, black
	•	•	DOWSIL™ 733 Glass & Metal Sealant	-70 to 350 (400)/-57 to 177 (204)	10	15		350	25	335	500	4.03	Aluminum, clear translucent, white, black
	•		DOWSIL™ 734 Flowable Sealant	-70 to 350 (400)/-57 to 177 (204)	7	13		650	27	222	315	1.03	Clear, white
	•		DOWSIL™ 736 Heat Resistant Sealant	-85 to 500 (600)/-65 to 260 (315)	10	17		390	26	350	600	1.04	Red
	•	•	DOWSIL™ 786 Silicone Sealant	-70 to 350 (400)/-57 to 177 (204)	5	20		350	25	325	600	1.04	Clear translucent, white
	•		XIAMETER™ CTG-1890 Protective Coating	-70 to 350 (400)/-57 to 177 (204)	15	25		-	21	-	-	1.03	Gray
21 CFR 175.300	21 CFR 175.2600	21 CFR 175.105	Alkoxy Sealant	Temperature Range <sup>5</sup> , °F/°C, Continuous (Intermittent)	Skin-Over Time, min	Tack-Free Time, min		Extrusion Rate, g/min	Durometer, Shore A	Tensile, PSI	Elongation	Specific Gravity	Color
	•	•	DOWSIL™ 748 Non-Corrosive Sealant	-65 to 350 (400)/-55 to 177 (204)	15	30		150	25	275	350	1.33	Off-white

<sup>4</sup>The temperature limit may approach 260°C with no oxygen present.

<sup>5</sup>Estimated service temperatures based on product formulation and laboratory testing. Actual service temperature range is dependent on other factors, including the specific application environment.

## Share in Our Expertise

Gain the benefits of DOWSIL™ brand technology-driven solutions to meet assembly and maintenance challenges in the food and beverage industry. We are ready to work for you with specialty products, collaborative problem-solving, and customized services and support. Learn more at [consumer.dow.com](http://consumer.dow.com).

---

Images: Cover – dow\_419735181110; Page 2 – dow\_41959478809; Page 3 – dow\_40643696284, dow\_40694856130, dow\_40962316760

### 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 [WWW.CONSUMER.DOW.COM](http://WWW.CONSUMER.DOW.COM), OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

### 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.**

®™ Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

© 2018 The Dow Chemical Company. All rights reserved.

30023848

Form No. 80-3189-01 B