Consumer Solutions

Certified Solutions for Food and Beverage Processing

Gain efficiency with sealants from Dow





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 sustems, 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

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.







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 Dow

NSF Standards

NSF 51	NSF 61	Acetoxy Sealants	Temperature Range[1], °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[1], °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 Tensilse Strength, MPa	Ultimate Elongation, %	Tear Strength – Type B, pli	Peel Strength[2], 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

[1]Estimated service temperatures based on product formulation and laboratory testing. Actual service temperature tange is dependent on other factors, including the specific application environment.
[2]180° peel from various substrates based on ASTM C794: 21-day cure (24 ±2°C; 50 ±5% RH) + 7-day H_2O immersion.
[3]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[5], °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[5], °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

[4]The temperature limit may approach 260°C with no oxygen present.
[5]Estimated service temperatures hased 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**.

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