

## Description

Also available to buy online at [mouser.com](https://www.mouser.com/brands/wacker)  SHOP 

Cost-effectiveness and sustainability are key considerations when it comes to bonding and sealing. Bonding with silicone adhesive sealants has decisive advantages over traditional mechanical joining technologies in terms of handling, functionality, durability and cost-efficiency. Single part RTV (RTV-1) silicones are one-step, ready-to-use adhesives and sealants. They crosslink automatically when exposed to air humidity at room temperature. These silicone rubbers are either room-temperature-vulcanizing (RTV) or one-part heat-curing systems. Both systems are exceptional for their processing properties.

Another important criterion for selecting the best product is the flow property – we offer you RTV-1 silicones with a consistency ranging from free-flowing to non-sag pastes.

WACKER silicone adhesive sealants can be applied easily and economically either manually or with automated dispensing equipment. Compared to mechanical joining methods, adhesive sealants significantly reduce not only the quantity of parts (e.g. screws, rivets, etc.) but also the number of process steps. Hence, silicone adhesive sealants help to reduce process cycle time.

RTV-1 silicones find many applications in form-in-place (FIP) gaskets and cure-in-place (CIP) gaskets.

## Features & Benefits

- **Bonding efficiency:** An adhesive sealant acts as a bonding agent and sealant at the same time. The need for additional mechanical safeguarding measures often becomes obsolete.
- **High joint reliability:** Thanks to the good electrical insulating properties of silicones, different metals can be bonded without the risk of galvanic corrosion.
- **Joint stress relaxation:** Thanks to their low Young's modulus, silicone adhesive sealants effectively compensate thermomechanical loads resulting from substrates with differing coefficients of thermal expansion.
- **Versatile applicability:** Silicone adhesive sealants have a high ability to bond dissimilar materials, usually without the need for primers.
- **Temperature resistance:** Permanently elastic properties from -45°C to over approx +180°C; Specialised types remain elastic even at 250°C and briefly tolerate even higher temperature spikes
- **Chemical resistance:** Permanent resistance to aqueous solutions, dilute acids and bases as well as solvents
- **Resistance to radiation:** Can be exposed to electromagnetic radiation emitted by sources from microwaves to UV even at higher doses
- **Vibration and mechanical strength:** Processing tolerances for joint parts are effectively compensated and vibrations are effectively dampened thanks to its high elasticity
- **Minimal moisture absorption:** The hydrophobic, water-repellent surface of silicones offers excellent protection against moisture



Volumetric Dispensing System for 310ml Cartridges

We supply the equipment necessary to dispense silicones, including [manual silicone dispensing guns](#) and complete [automated silicone dispensing systems](#). Get in touch with our team to discuss the best options for your production environment.

See how one of our customers improved their manufacturing process and quality in this silicone dispensing [Case Study](#):

<p><b>CASE STUDY</b></p> <p><b>Fisnar</b> Dispensing robot</p> <p><b>preeflow® eco-PEN 600</b> Precision volumetric dosing pump</p> <p><b>flowplus<sup>16</sup></b> Inline fluid sensor</p>   <p><a href="#">Click here to watch a video of this case study</a></p>	<p><a href="#">Automated dispensing helps security manufacturer increase throughput and quality</a></p> <p>GJD Manufacturing switched to an automated method of dispensing silicone for sealing a plastic lens to aluminium housing. By doing this, they improved the throughput and quality of their white-light and infrared LED illuminators for the security industry.</p>
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CASE STUDY

**Wacker Elastosil N2199**  
Highly flexible, translucent silicone

**Fisnar F4403 ADVANCE**  
Benchtop dispensing robot



**intertronics**  
adhesives, coatings, sealants & equipment  
for your manufacturing and technology applications

Automated dispensing system increases lighting manufacturer's throughput fourfold

Automotive and marine lighting manufacturer, Venta Global, needed a material that offered high levels of environmental protection as well as a method of automating their gasking process. Choosing to implement Wacker N2199 and a dispensing robot into their process, Venta Global significantly improved the performance and throughput of their lighting assemblies.

Specifications

Product Characteristics	Viscosity (mPas)	Colour	Hardness (Shore A)	UL94 V-0	Elongation %	Temperature Range
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<div>Elastosil N9111</div> <div></div>	<p>Very popular neutral cure, non-corrosive adhesive/sealant, with excellent primerless adhesion. Shear-thinning, non slump paste. Medium hardness. Also suitable for CIPG and FIPG gasket applications. UL94 V-0. Electronic component staking, ruggedising, wire tacking, Automotive, Appliances. Compatible with all silicone potting compounds;</p>	800,000	Black or White	30	Yes	500	-45 to 180°C
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Elastosil N2034	Flowable, non-corrosive black silicone for technical applications including bonding, sealing, coating, potting and gasketing. Self-levelling with medium hardness when cured, and flame retardant.	25,000	Black	35	Yes	200	-50 to 180°C
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<div>Elastosil N2189</div> <div> <small>SHOP</small></div>	<p>Non-corrosive, neutral cure, hard but flexible silicone. Mineral oil and coolant resistant, with good heat stability and flame retardancy. A particularly good choice in applications such as automotive gasketing. UL94 V-0.</p>		Black	45	Yes	250	up to 180°C
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<div>Elastosil N2199</div> <div></div>	Highly flexible, translucent silicone which meets the criteria of MIL-SPEC 46146. Neutral cure and good adhesion to many substrates including plastics, glass, metals and ceramic. Cured product has outstanding resistance to weathering, ageing, moisture, and UV light.		Translucent	30		350	-45 to 180°C
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<div>Elastosil E4</div> <div></div>	<p>Soft, non-slump transparent adhesive sealant with low hardness, useful for signage, CIP gasketing and sealing applications. Highly elastic with excellent recovery after compression.</p>		Transparent 15			750	up to 180°C
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<div>Elastosil E10</div> <div></div>	<p>Flowable sealant with excellent heat stability up to 250°C, long-term elasticity under thermal stress, and good mechanical properties. Low hardness. Application: include sealing of heating elements.</p>	8,000	Red	25		300	up to 250°C
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<div>Elastosil E14 Red</div> <div></div>	<div>Non-sag sealant with a broad adhesion profile and excellent heat stability up to 250°C. Medium hardness. Applications include small appliances, FIP gaskets, and HVAC.</div>	<div>1,000,000</div>	<div>Red</div>	<div>32</div>		<div>400</div>	<div>up to 250°C</div>
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Elastosil E41	Transparen sealant with excellent adhesion to cured silicone.	100,000	Transparen	40		350	up to 200°C
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<div>Elastosil E43 N</div> <div></div>	<p>Food compliant, high viscosity, fast curing adhesive sealant which cures to a transparent, medium-hard elastomer. High elasticity, tensile strength and tear resistance. Adheres to cured silicone rubber. Temperature resistance up to 200°C.</p>	300,000	Transparent 30		600	-50 to 180°C
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<div>Elastosil E50 N</div> <div></div>	Food compliant, transparent silicone for coating and potting applications including textile coatings. Medium hardness, more rigid than E43N.	50,000	Transparent	35		150	up to 180°C
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<div>Silpuran 4200</div> <div></div>	Medical-grade, biocompatible acetoxycuring adhesive sealant which meets the requirements of ISO 10993 and USP Class VI. Fast skin time; medium hardness.	300,000	Translucent	35		300	
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Semicosil 987	Rapid heat-curing black adhesive sealant for electronics applications including CIP and FIP gaskets. High hardness.	350,000	Black	50		200	-50 to 180°C
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Semicosil 989/1K	General purpose transparent adhesive for the electronics industry. FIPG and CIPG applications. Primerless adhesion to many substrates.	300,000	Transparent	55		200	
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Wacker Silicone Primers and Inhibitors	
Product	Characteristics



Wacker Silicone Primers and Inhibitors

Primer G 790-TF	General purpose adhesion-promoting primer for use with addition-curing silicone rubbers. Toluene-free, solvent-based material which is suitable for various coating techniques like dipping, brushing or spraying.
Inhibitor PT 88	Can be added to RTV-2 addition cure silicones to extend the pot life and cure time to suit the processing requirements of your particular application.


For additional specifications, view our [selector guide](#).

Safety Data Sheets

For the latest SDS for this product, please e-mail [msds@intertronics.co.uk](mailto:msds@intertronics.co.uk)



Ordering Information

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