High-quality connections for

household appliances



OTTO -

a strong partner since 1881



The origin and culture of a non-affiliated family business still serve as a model for the management of OTTO and they influence the thoughts and actions of every single employee.

Our customers benefit from this both directly and indirectly. Flat hierarchies, cooperation on a basis of partnership and close collaboration between the various departments are all factors which contribute to quickly finding target-orientated, professional solutions. To us long-term cooperation outweighs short-term salesgrowth by far.

This attitude has significantly influenced our work and continues to do so – the company is now in its fifth generation since being founded in 1881. Today OTTO combines the professionality of a large company with the advantages of a family business. OTTO's customers benefit from this stability in a framework of single and multisourcing strategies, and not least by having a reliable source for the purchase of directly production – influencing sealants and adhesives.

Brand quality down to the most minute detail

In the case of kitchen and household appliances, sealants and adhesives account for only a relatively small proportion of the total costs. Nevertheless, their impact on the device, costs and the brand image is greater than one would initially think. This is because the quality of the finish, the performance, material compatibility and the service life of consumer goods are not perceived until they fail to meet the requirements. This results in higher production costs and is expensive for end consumers.

With its sophisticated product concepts OTTO pursues a sustainable approach which also makes commercial and technical sense. With OTTO products and adhesives money can be saved, without skimping on seal-ants and adhesives. A broad range of highly specialised products for all applications and experienced advisors make it easier to choose the right product for processing in industry.

The present brochure is intended to give an initial overview of the many applications in which OTTO products are used. It goes without saying that we are available with advice and assistance for any type of question resulting from reading the present product overview.



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OTTO solutions for household appliances



OTTO solutions



Perfect finish visible joints on glass ceramic hobs

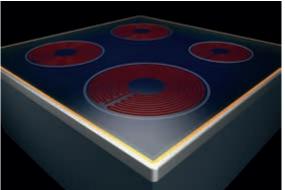


For visible joints on glass ceramic hobs ("open sealing"), silicone products require a particularly high degree of viscosity in order to realize a perfectly even appearance.

For this purpose one-part silicone products with a specific degree of viscosity are the best option.

The OTTO products for this application are also distinguished by requisite high heat resistance and their excellent adhesion properties on smooth materials, particularly glass ceramics, metals or enamel.

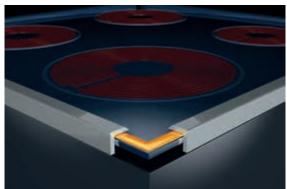




Novasil [®] S56		Novasil [®] S76	Novasil [®] S96	
Chemical base	One-part oxime silicone	One-part acetate silicone	One-part alkoxy silicone	
Curing rate	2-3 mm/24hrs	2-3 mm/24hrs	2-3 mm/24hrs	
Max. termal resistance	250°C	285°C	180°C	
Certification	UL 94 HB	UL 94 HB	UL 94 HB	
Product benefit	Fast curing	"very good temperature restistance"	Odourless	

Fast processing invisible joints on glass ceramic hobs







Generally speaking bonds on glass ceramic surfaces are realised with two-part silicone adhesives, which – contrary to "open sealing" – do not have to meet high aesthetic demands because they remain hidden from the end consumer.

Besides processing times, curing times are also restricted to a minimum and therefore have a positive impact on the production and cycle times. Here too, the adhesive displays maximum temperature resistance, is compatible with metal (including coated) surfaces and adheres excellently to all customary materials, usually without any primer.

	Novasil® S44	Novasil® S43	Novasil [®] S806	Novasil® S 690	
Chemical base	Two-part alkoxy silicone	Two-part alkoxy silicone	Two-part alkoxy silicone	Two-part acetate silicone	
Pot life	5-25 minutes	5-10 minutes	10-25 minutes	5-10 minutes	
Shore A-Hardness after 24 hours	37-43	25-35	35-45	40-50	
Max. termal resistance	180°C	180°C	250°C	250°C	
Certification	UL 94 HB			"NSF 51 UL 746C"	
Product benefit	"excellent adhesion without primer"	2:1 mixing ratio	"Odourless 2 part alcoxy high temperature silicone"	"Fast curing 2 part acetate high temperature silicone"	

Structural **bondings around the stove**



Both ready-to-use one-part silicone adhesives with longer curing times and fast-curing two-part silicones can be used for fixing brackets and knob-housing. It goes without saying that the product characteristics include compatibility with metal and very good adhesion on all standard materials.

OTTO products also have a high viscosity rate and improved stability. Among other things, this makes it possible to meet special requirements during production.



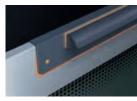


	Novasil® S56	Novasil® S44	Novasil® S43	Novasil® S806	Novasil® S 690
Chemical base	One-part oxime silicone	Two-part alkoxy silicone	Two-part alkoxy silicone	Two-part alkoxy silicone	Two-part acetate silicone
Curing rate	2-3 mm/24hrs				
Pot life		5-25 minutes	5-10 minutes	30 minutes	5-10 minutes
Shore A-Hardness after 24 hours	35-45	37-43	25-35	35-45	40-50
Max. termal resistance	250°C	180°C	180°C	250°C	250°C
Certification	UL 94 HB	UL 94 HB			"NSF 51 UL 746C"
Product benefit	Fast curing	"excellent adhesion without primer"	2:1 mixing ratio	"Odourless 2 part alcoxy high temperature silicone"	"Fast curing 2 part acetate high temperature silicone"

Wide range of solutions for hot applications









Bonding points on doors and inner panes as well as on mounting brackets and decorative elements are often exposed to stress from high temperatures and steam.

OTTO has a wide range of one-part and two-part silicone adhesives to offer for such bonding challenges. Depending on the requirement, with have different curing times and even at temperatures up to 285 °C they adhere reliably and securely.

	Novasil® S56	Novasil® S76	Novasil® S44	Novasil® S43	Novasil® S806	Novasil® S690
Chemical base	One-part oxime silicone	One-part acetate silicone	Two-part alkoxy silicone	Two-part alkoxy silicone	Two-part alkoxy silicone	Two-part acetate silicone
Curing rate	2-3 mm/24hrs	2-3 mm/24hrs				
Pot life			5-25 minutes	5-10 minutes	30 minutes	5-10 minutes
Shore A-Hardness after 24 hours	35-45	30-40	37-43	25-35	35-45	40-50
Max. termal resistance	250°C	285°C	180°C	180°C	250°C	250°C
Certification	UL 94 HB	UL 94 HB	UL 94 HB			"NSF 51 UL 746C"
Product benefit	Fast curing	"very good temperature restistance"	"excellent adhesion without primer"	2:1 mixing ratio	"Odourless 2 part alcoxy high temperature silicone"	"Fast curing 2 part acetate high temperature silicone"

Wide range of solutions professional kitchen equipments



OTTO offers a wide range of products for profesional kitchen equipments used in restaurants, supermarkets or by catering companies.

Very specific properties such as great strength and adhesive performance are required by dishwashing solutions for catering industry, butchers or bakeries.

Bonding oven doors, decorative elements or glass ceramic hobs on professional cooking equipments require one or two part silicones with high temperature resistance and strong mechanical properties.





	Novasil® S56	Novasil® S76	Novasil® S800	Novasil® S44	Novasil® S806	Novasil® S690
Chemical base	One-part oxime silicone	One-part acetate silicone	One-part alkoxy silicone	Two-part alkoxy silicone	Two-part alkoxy silicone	Two-part acetate silicone
Curing rate	2-3 mm/24hrs	2-3 mm/24hrs	2-3 mm/24hrs			
Pot life				5-25 minutes	30 minutes	5-10 minutes
Shore A-Hardness after 24 hours	35-45	30-40	40-50	37-43	35-45	40-50
Max. termal resistance	250°C	285°C	180°C	180°C	250°C	250°C
Certification	UL 94 HB	UL 94 HB	UL HB 94	UL 94 HB		"NSF 51 UL 746C"
Product benefit	Fast curing	"very good temperature restistance"	Odourless	"excellent adhesion without primer"	"Odourless 2 part alcoxy high temperature silicone"	"Fast curing 2 part acetate high temperature silicone"

Benefit from professionals



OTTO's target - perfectly matching sealants and adhesives

Exclusively by personal dialogue, consultation and support we are able to determine the best matching solution from the wide range of OTTO's industral products. For this we offer assistance through our educated and highly experienced field personnel who are able to sort out technical, commercial and organisational details. It's them, who suggest Novasil® products and probable alternative options in close cooperation with experts of OTTO's application engineering based on specifications and/or requierements. Additionally, R+D is involved should there be the necessity to modify, alter, (re-)design or add new features.

However, the correct selection of a product alone is not the one and only decisive factor for industrial implementations. That is the reason for OTTO's close-meshed network throughout equipment manufacturers, pretreatment specialists and process engineers. A perfect connection of substrates is and always will be the result of a close cooperation between experienced individuals.

