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# INSTRUCTIONS FOR USE

ENGLISH



**elaboro®**  
german | dental | innovation

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GA LiSi CONDITIONER EN  
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## elaboro® LiSi CONDITIONER

Type identification, classification, marking according to DIN EN ISO 6872:

Dental ceramic type I, Class 1a; Ceramic raw material for the manufacture of dentures

### 1. Application area

Elaboro® LiSi CONDITIONER is a ready-to-use and easy-to-apply lithium silicate glass ceramic for surface conditioning of monolithic zirconium oxide restorations. Adhesive cementation of zirconium oxide: elaboro® LiSi CONDITIONER gives the zirconium oxide restoration glass-ceramic surface properties comparable to LiSi2. ZrO2 can be glued directly like a glass ceramic. In order to optimally coat the adhesive surfaces with elaboro® LiSi CONDITIONER, you do not need any special surface preparation. The zirconium oxide parts should be clean and free of dust and grease in order to guarantee uniform coating results.

Elaboro® LiSi CONDITIONER is suitable for all dental zirconium oxides.

### 2. Safety instructions

Please observe the instructions on the label of the spray can: Flammable aerosol. The container is under pressure: it can burst when subjected to heat. Causes severe eye irritation. Keep away from heat, hot surfaces, sparks, open flames and other types of ignition sources. No smoking. Do not spray in the direction of an open flame or other source of ignition. Do not pierce or burn, even after use. Wear protective gloves/protective clothing/eye protection/mask. In case of persistent eye irritation: seek medical advice/seek medical help. Protect against sunlight. Do not expose to temperatures above 50°C / 122°F. Please observe the safety data sheet [www.elaboro.de].

### 3. Working instructions

Store elaboro® LiSi CONDITIONER spray cans at room temperature. Use Elaboro® LiSi CONDITIONER at temperatures of 15–35°C. Too high or too low ambient temperatures will negatively affect the spray result. Only use the spray in well-ventilated rooms, use suitable suction systems and wear a dust protection mask to protect against the fine spray. Make sure to use the spray in good lighting, so that you can see whether the restoration has been coated evenly and completely.

### 4. General working instructions

Elaboro® LiSi CONDITIONER is intended exclusively for use in dental laboratories by trained personnel.

- Only use in well ventilated rooms.
- Do not inhale the spray mist.
- Wear a dust protection mask and a suitable workplace suction unit.
- It is not permitted for intraoral use.
- Please observe the safety data sheet.
- The aerosol container is under pressure and must be protected from sunlight and temperatures above 50°C / 122°F.
- Keep away from sources of ignition. No smoking.
- Do not spray in the direction of open flames or on hot surfaces.
- After use, do not force open or burn.
- Always empty the spray can fully.

### 5. Preparing the zirconium oxide restoration

In order to achieve optimal surface results, the fully sintered and fitted zirconium oxide restoration must be dry, clean, free from dust and grease. Only a small application of elaboro® LiSi CONDITIONER is required for the build-up of conditioning layers. Crown margins, marginal fit and occlusion are barely changed by a single application. We recommend that you apply elaboro® LiSi CONDITIONER only after the dental try-in and any necessary corrections.

### 6. Use

**Step 1:** Before attaching the spray head for the first time, shake the spray can intensively in order to activate the spray composition, so that the ceramic particles mix fully with the mixing liquid within the spray can. The mixing balls can be clearly heard after just a few seconds, but still shake the spray can vigorously for 1 minute.

**Step 2:** Now, attach the spray head with the spray lance and shake again briefly. The spray is now ready-for-use. After short spray breaks of non-use, shake the spray up again using circular movements. This procedure is essential. A good preparation ensures of optimal spray results and prevents failure of nozzles, tubes and the valve system.

### 7. Before initial use

Before initial use, test the spray on a glass panel first. Make sure you spray at the correct distance of approx. 15–20cm from the object. With short spurts of spray, you will achieve an optimal layer application. Only use the spray head provided. Wet spots or „drips“ are an indication that the spray distance is too close. Uneven powder deposits mean too much has been sprayed or the can has not been shaken sufficiently and the powder is not mixed entirely.

### 8. Spraying techniques

During use, hold the spray can in an upright position as much as possible. Unlike applying a lacquer, it is advisable to apply elaboro® LiSi CONDITIONER in short sprays. This way, only small amounts of powder are distributed, at the same time the nozzle system cleans itself during this procedure.

### 9. Layer thickness

Apply the spray so that the zirconium surface still shimmers through the pink powder. The carrier fluid evaporates completely after a few seconds and leaves a thin powder layer that adheres well to the surface and does not flow.

### 10. Errors during spraying

Incorrectly sprayed parts can be easily washed off with water or steam cleaned away, the same applies if too much material has been applied. After drying with compressed air, the elaboro® LiSi CONDITIONER can once again be sprayed. If small areas are damaged during the handling of the sprayed dental restorations, these can be easily re-sprayed thinly.

### 11. Ceramic firing

Carry out the ceramic firing according to the instructions (table firing parameters). During the ceramic firing, components of the zirconium dioxide and the elaboro® LiSi CONDITIONER spray diffuse together close to the surface to form a strong bond when cool. For older ceramic furnaces, we have included a simplified firing program with a heating rate, which has proven helpful for many customers. Please test the firing parameter for your furnace.

### 12. Instructions for surface conditioning

Elaboro® LiSi CONDITIONER is used to produce adhesive surfaces and is indicated for all ceramic restorations made of zirconium oxide. Minimally invasive restorations made of zirconium oxide such as veneers, inlays / onlays and flat crowns are ideal.

For this purpose, elaboro® LiSi CONDITIONER is applied thinly to the inner crown surfaces or the wing surfaces of a Maryland bridge and fired according to the specifications for diffusion firing. The extremely thin, firmly adhering glass layer will not affect the fit in any way.

Generally, zirconium oxide restorations coated with elaboro® LiSi CONDITIONER are either

a) Etched: The classic attachment protocol for glass ceramics with ceramic etching gel applies, (e.g. IPS Ceramic Etching Gel / 20 sec.) forms retentive adhesive surfaces on the all-ceramic restoration in preparation for integration. It strengthens the adhesive effect between the luting composite and the ceramic adhesive surface. The manufacturer's instructions for use must be followed exactly.

b) Alternatively, the glazed attachment surface is completely sandblasted with fine corundum (aluminum oxide) and only blown off; the glazed preparation edges should remain as intact as possible. Do not steam off the fastening surfaces, if necessary, clean in alcohol.

In the case of adhesive cementation of zirconium oxide restorations coated with elaboro® CONDITIONER, we recommend universal one-component adhesion promoters for the establishment of an adhesive bond of cementation composites to glass and oxide ceramics (e.g. Monobond Plus / 60 sec.).

Varolink Esthetic is particularly recommended for the permanent cementation, as the excess can be removed without any problems even after it has hardened. The color concept enables the almost invisible integration of restorations.

### 13. Troubleshooting

The elaboro® LiSi CONDITIONER layer is very thin. If small pores are visible in the surface after firing, this is usually due to too little powder application.

### 14. Cleaning

After using the spray can, immediately clean the spray head (e.g. by rinsing with hand-warm water and cleaning with compressed air, if necessary, also in an ultrasonic bath). Dry the head with compressed air.

### CONDITION FIRING FOR ADHESIVE SURFACES

Closing time	Standby temperature		Heating rate		Firing temperature		Holding time	Heating rate		Firing temperature		Holding time	Long-term cooling	Cooling rate		Vacuum	
min	°C	°F	°C/min.	°F/min	°C/min.	°F/min	min	°C/min.	°F/min	°C	°F	min	depend on size	°C/min.	°F/min	400°C	752°F
1	400	752	40	72	820	1508	5	20	36	910	1670	2–5	yes	20...80	35...140	max. 30%	

### ALTERNATIVE FIRING RECOMMENDATIONS FOR OLDER FURNACES

Closing time	Standby temperature		Heating rate		Firing temperature		Holding time	Long-term cooling	Cooling rate		Vacuum
min	°C	°F	°C/min.	°F/min	°C/min.	°F/min	min	depend on size	°C/min.	°F/min	-
1	400	752	40	72	910	1670	3	yes	20...80	35...140	no

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**LiSi** **CONDITIONER**

Explanations of danger and warning signs



Manufacturer



Follow our instructions for use!



Attention: Observe accompanying document!



Item No.



Charge No.



Working temperature



Transport- and storage temperature



Expiry date



Caution! Flammable Aerosol!  
Causes severe eye irritation!

