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INSTRUCTIONS FOR USE

ENGLISH

elaboro[®]
german | dental | innovation

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GA LiSi PURE EN
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elaboro[®] LiSi PURE

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 PURE is a ready-to-use and easy-to-apply lithium silicate glass ceramic for finishing the surfaces of monolithic restorations made from zirconium oxide. The surfaces do not need to be prepared in any way prior to use; no solvents and no pre-firing is required before coating the restoration surfaces with elaboro[®] LiSi PURE. The zirconium oxide parts must be clean and free from dust and grease in order to guarantee a uniform layer on the surface. Elaboro[®] LiSi PURE is suitable for all dental zirconium oxide materials.

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 our safety data sheet Link [www.elaboro.de].

3. Working instructions

Store the elaboro[®] LiSi PURE spray cans at room temperature. Use elaboro[®] LiSi PURE at room 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 PURE is intended exclusively for use in dental laboratories by trained personnel.

- Only use in well ventilated rooms.
- It is not permitted for intraoral use.
- Do not inhale the spray mist.
- Wear a dust protection mask and a suitable workplace suction unit.
- The aerosol container is under pressure and must be protected from sunlight and temperatures above 50°C/122°F.
- No smoking.
- Keep away from sources of ignition.
- Do not spray in the direction of open flames (e.g. Bunsen burners) or on hot surfaces.
- Keep out of the reach of children.
- 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 PURE is required to cover the surface. In particular, when creating full anatomical monolithic restorations, the functional and aesthetic features, such as occlusal surfaces, contact points, color gradient and individual effects, should be taken into account before the zirconium oxide is sintered. The occlusal surface, crown margins and marginal fit are barely changed by a single application. We recommend that you apply elaboro[®] LiSi PURE 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. 15–20 cm 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 PURE in small 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 white 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 PURE 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 (firing parameters) for elaboro[®] LiSi PURE. During the ceramic firing, components of the zirconium dioxide and the elaboro[®] LiSi PURE spray diffuse together close to the surface to form a strong bond when cool. At the same time a smooth surface is formed.

a. Diffusion firing: If the spray has been applied correctly, you will achieve a strong, smooth and homogeneous surface quality with an optimal bond to zirconium oxide after the first firing already.

b. Using stains: Elaboro[®] LiSi PURE is a universal, transparent, thin layered veneer. It can either be used alone or in combination with high-fusing stains and ceramic materials. If the restoration is to be individualized with stains, these are applied immediately after the 1st firing (diffusion firing).

c. Individualization firing: After the stains have dried, the restoration is sprayed again thinly with elaboro[®] LiSi PURE and then fired a second time (Individualization firing). After this firing, the surface should be shiny, pore-free and homogenous. During the second firing, the holding times can be shortened in order to reduce the thermal stress on the stains.

d. Alternative firing recommendations: For older ceramic furnaces, we have included a simplified firing program with a heating rate, which has proven helpful for many customers.

12. Troubleshooting

If small pores are visible in the surface after firing, this is usually due to too little powder application. Spray the restoration again, without any additional surface treatment, and fire once again. Please check the firing parameters and/or furnace calibration.

13. 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). Then, dry the head with compressed oil free air.

14. Tips for the dentist

During a professional tooth cleaning treatment (prophylaxis), elaboro[®] LiSi PURE treated surfaces must not be blasted with powder materials. Roughened glass ceramic surfaces are permanent and will lead to an accumulation of plaque. Elaboro[®] LiSi PURE can also be used for additional indications.

A detailed step by step guide for the additional uses can be found on our webpage www.elaboro.de.

It is essential to follow the firing parameters specified in this instruction manual. Please also refer to the information on workplace exposure, transport and storage specifications in the safety data sheet.

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	°F	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	920	1688	2–5	yes	20...80	35...140	max. 30%	

INDIVIDUALIZATION

Closing time	Standby temperature		Heating rate		Firing temperature		Holding time	Long-term cooling	Cooling rate		Vacuum
min	°C	°F	°C/min	°F/min	°C	°F	min	depend on size	°C/min	°F/min	-
1	400	752	50	90	920	1688	1–3	yes	20...80	35...140	no

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	°F	min	depend on size	°C/min	°F/min	-
1	400	752	40	72	920	1688	2–5	yes	20...80	35...140	no

Transparentes Lithiumsilicat · Transparent Lithium Silicate

LiSi PURE

Explanations of danger and warning signs



Manufacturer



Follow our instructions for use!



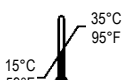
Attention: Observe accompanying document!



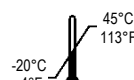
Item No.



Charge No.



Working temperature



Transport- and storage temperature



Expiry date



Caution! Flammable Aerosol!
Causes severe eye irritation!

