

sagemax[®]



Instructions for Use

NexxZr[®]
Glaze Spray

sagemax.com

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Product information

NexxZr® Glaze Spray 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 bonder, no solvents and no pre-firing is required before coating the restoration surfaces with Sagemax NexxZr Glaze Spray. The zirconium oxide parts must be clean and free from dust and grease in order to guarantee a uniform layer on the surface. NexxZr Glaze Spray is suitable for all dental zirconium oxide materials.

Indication

The NexxZr Glaze Spray may only be used extraorally.

- › Crowns
- › Inlays
- › Onlays
- › Partial crowns and bridges in the front and side tooth area

Contraindication

- › Application on zirconia in the unsintered state
- › Application to low melting point ceramics
- › Application intraoral

Side effects

There are no known side effects. In case of known allergy to one of the ingredients, the use of NexxZr Glaze Spray should be avoided.

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
- › Do not smoke
- › 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

General working instructions

NexxZr Glaze Spray 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 use a suitable workplace suction unit.
- › It is not permitted for intraoral use.
- › The aerosol container is under pressure and must be protected from sunlight and temperatures above 50°C/122°F.
- › Do not smoke.
- › 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 completely empty the spray can.



Important information

Store the NexxZr Glaze Spray spray cans at room temperature. Use NexxZr Glaze Spray at room temperatures of 15–35°C/59–95°F. 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.

Material composition

Propellant (Solstice HFO 1,2,3,4 ze), Solvent (Iso-propanol) and mixture of dental ceramic powder.

Instructions for use

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.

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 periods of non-use, shake the spray can up again using circular movements. This procedure is essential. A good preparation ensures optimal spray results and prevents failure of nozzles, tubes and the valve system.

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 NexxZr Glaze Spray 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 NexxZr Glaze Spray only after the dental try-in and any necessary corrections.

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 NexxZr Glaze Spray 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.

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.

Troubleshooting

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 NexxZr Glaze Spray 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.

Ceramic firing

Carry out the ceramic firing according to the instructions (firing parameters) for NexxZr Glaze Spray. During the ceramic firing, components of the zirconium dioxide and the NexxZr Glaze Spray diffuse together close to the surface to form a strong bond when cool. At the same time a smooth surface is formed.

Diffusion firing

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

Using stains

NexxZr Glaze Spray 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).

Individualization firing

After the stains have dried, the restoration is sprayed again thinly with NexxZr Glaze Spray 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.

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.

Troubleshooting

After the stains have dried, the restoration is again sprayed thinly with NexxZr Glaze Spray and the 2nd firing (individualization firing) follows. 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.

Cleaning

After using the spray can, immediately clean the spray head (e.g. by rinsing with lukewarm water and cleaning with compressed air, if necessary, also in an ultrasonic bath). Then, dry the head with compressed oil-free air.



Tips for the dentist

During a professional tooth cleaning treatment (prophylaxis), NexxZr Glaze Spray treated surfaces must not be blasted with powder materials. Roughened glass ceramic surfaces are permanent and will lead to an accumulation of plaque. NexxZr Glaze Spray can also be used for additional indications. A detailed step by step guide for the additional uses can be found on our Sagemax webpage.

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.

Firing parameters

1st firing (diffusion firing)

Stand-by temperature	Closing time	Heating rate	Firing temperature	Holding time	Heating rate	Firing temperature	Holding time	Vacuum	Long-term cooling	Cooling rate
B	S	t ↗	T ₁	H ₁	t ↗	T ₂	H ₂	V	L	t _L
°C/°F	min	°C/°F/min	°C/°F	min	°C/°F/min	°C/°F	min	°C/°F	°C/°F	°C/°F/min
400/752	01:00	40/72	820/1508	05:00	20/36	920/1688	02:00 - 05:00	no	450/842	20-80* 36-144*

* Depending on framework size

Depending on the furnace type, the firing temperature can be adjusted by ± 5°C/9°F, max. by ± 10°C/18°F.

2nd firing (individualization firing)

Stand-by temperature	Closing time	Heating rate	Firing temperature	Holding time	Vacuum	Long-term cooling	Cooling rate
B	S	t ↗	T	H	V	L	t _L
°C/°F	min	°C/°F/min	°C/°F	min	°C/°F	°C/°F	°C/°F/min
400/752	01:00	50/90	920/1688	01:00 - 03:00	no	450/842	20-80* 36-144*

* Depending on framework size

Depending on the furnace type, the firing temperature can be adjusted by ± 5°C/9°F, max. by ± 10°C/18°F.

Alternative firing

Stand-by temperature	Closing time	Heating rate	Firing temperature	Holding time	Vacuum	Long-term cooling	Cooling rate
B	S	t ↗	T	H	V	L	t _L
°C/°F	min	°C/°F/min	°C/°F	min	°C/°F	°C/°F	°C/°F/min
400/752	01:00	40/72	920/1688	02:00 - 05:00	no	450/842	20-80* 36-144*

* Depending on framework size

Depending on the furnace type, the firing temperature can be adjusted by ± 5°C/9°F, max. by ± 10°C/18°F.



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RX only

For dental use only

This material has been developed solely for use in dentistry and must be processed according to the Instructions. Liability cannot be accepted for damages resulting from misuse or failure to observe the Instructions. The user is solely responsible for testing the material for its suitability for any purpose not explicitly stated in the Instructions. This also applies when the materials are mixed with or used together with products from other companies.

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