

Kiero Ceramic Repair Kit - User Instructions

Ceramic-Composite Repair System

Indication

The combination of the Repair Primer and Base represents a fast and universally applicable system for intraoral and extraoral repair of fractured ceramic blending without acid cauterization.

Preparation of Surface Fractures

Smooth the damaged surface and roughen it with a fine grit diamond (< 50 micron) or intraoral air polisher before cleaning off any adhering material with oil-free compressed air.

Please note

The use of an intraoral air polisher (Al_2O_3 / < 120 μm) further enhances the bond strength.

Kiero Repair Primer

Application

In combination with Repair Base, Repair Primer serves as an adhesive agent for ceramic / metal and composites. Using a brush, apply a thin coat of primer to the ceramic or any exposed metal immediately after cleansing with oil free air pressure. Allow to air-dry for approximately 1 minute. A second coat may be applied if necessary. The treated surface must be dry; otherwise adhesion will be reduced considerably.

Kiero Repair Opaker

Application

Repair Opaque serves as a cover for the metal frame. Therefore, its use is necessary only when the fracture extends past the metal frame.

Using a hard, shorthaired brush, apply a thin coat of the opaque. A poorly covering opaque coat adversely influences the color effect. At least two coats are necessary to achieve total coverage. The fluidity of the opaque is optimized through stirring on a mixing block. Special attention must be given to the thin coating in the retention area. Each coat is polymerized separately (see table for polymerization time ranges).

Thick opaque coatings prevent optimal polymerization, therefore weakening the bond. A longer polymerization time does not lead to greater hardening depth.

Processing range of the mixture

1- 3 minutes, depending on light conditions

Kiero Repair Base

Application

Repair Base is not intended for completion of the blending. It merely improves the adhesion bond between the ceramic and the composite, and may only be applied thinly. The actual repair is then carried out with a composite material.

Application

Repair Base is applied onto the fracture surface with a needle and, using a brush, is distributed into a thin coat to cover the entire surface (disposable single-use needles included). Then the paste is hardened with a polymerization light tool (halogen as well as LED tools). The processing time of Repair Base ranges between 30 - 60 seconds.

Polymerization times for Repair Opaque and Repair Base with different light hardening tools

(valid as of: 10 / 2004) (data not guaranteed)

Light hardening tool	Kiero Repair Opaque	Kiero Repair Base
Spektra 2000 (Schütz Dental)	180 sec.	180 sec.
Spektra LED (Schütz Dental)	50 sec.	20 sec.
Uni-XS (Heraeus Kulzer)	180 sec.	180 sec.
Optilux 501 (Kerr)	60 sec.	40 sec.
CapoLux (Schütz Dental)	60 sec.	40 sec.
Translux CL (Heraeus Kulzer)	60 sec.	40 sec.

Light hardening of composite fillings

Apply composite according to manufacturer's instructions, harden with light, process and polish.

Important!

Care must be taken to ensure that neither saliva nor other contaminants come into contact with the surface being treated during the entire repair procedure, since this would considerably reduce the adhesion bond (we recommend the use of a dam in case of large restorations!). Avoid any contact of Repair Primer and Base with the mucous membranes.

Storage

Store material at 5 - 25 °C. Close product immediately after use and protect from direct light.

Shelf life

The maximum shelf life is printed on the label of each product. Do not use after the expiration date.

Troubleshooting List

Errors	Cause	Remedy
Blending does not hold after repair	<ul style="list-style-type: none"> - Surface not sufficiently roughened, cleaned and dried - Repair Opaque or Base not entirely hardened - Faulty frame dimensions - The repaired composite was not placed out of occlusion. 	<ul style="list-style-type: none"> - rough out frame surfaces and remove all grease layers, moisture and milling dust - see following points - new dimensioning of frame - In areas exposed to severe masticatory loading, trim the composite to prevent occlusal contact.
Repair Opaque not completely hardened	- Opaque applied too thickly	- thinner opaque application

	<ul style="list-style-type: none"> - Single coats not polymerized separately - Insufficient light output by polymerization lamp 	<ul style="list-style-type: none"> - separate polymerization of individual coats - check light output and eventual change of light source
Repair Bond not completely hardened (paste still green after light hardening)	<ul style="list-style-type: none"> - Base applied too thickly - Insufficient light output by polymerization Lamp 	<ul style="list-style-type: none"> - apply thinner coat of Repair Bond - check light output and eventual change of light source
Repair Bond in the needle appears to be too hard and solid	<ul style="list-style-type: none"> - Material not correctly sealed, paste prepolymerized - Material not warmed to room temperature after removal from the refrigerator 	<ul style="list-style-type: none"> - replace cap on needle after each material withdrawal - allow Repair Bond to warm to room temperature before use
Repair Bond in the needle appears too fluid		<ul style="list-style-type: none"> - observe the storage temperature, storage in refrigerator

Warranty

Our technical user tips, regardless of whether they are provided verbally, in writing or through practical guidance, stem from our own experiences and can therefore be regarded only as guidelines. Our products undergo continuous development. Therefore, we reserve the right to possible future changes.

Indications

Please observe the existing relevant safety datasheets while processing.

Side Effects

With appropriate processing and use of this medical product, undesired side effects are rarely experienced. Immune reactions (such as allergies) or local irritations cannot be ruled out entirely in principle. Please inform us of any undesired side effects you may have experienced – even when in doubt.

Adverse Signs / Interactions

Do not use or use only under strict supervision of the attending physician / dentist if patient suffers from hypersensitivity. In this instance, the composition of our medicinal product is available upon request. Known cross-reactions or interactions of this medicinal product with other materials already in the mouth must be taken into account by the dentist prior to use.

Manufacturer
 GDFMBH
 Rosbach - Germany

CE 0297

	Lot number		Highly flammable		Manufacturer		Storage temperature
	Expiry date		Xi, irritant		Read instructions for use		

Last update: 09.01.2007