Instructions for use:
Nacera® Hybrid

Application

Product Description

Nacera® Hybrid is a tough, radiopaque composite with optimized, high-density filler technology. Nacera® Hybrid is available in various colours for use as a blank or block in CAD/CAM technology for the production of inlays/onlays, veneers, partial crowns, crowns, as well as bridges (with a maximum of three units).

General Information:

Our application-related information – whether it has been provided orally, in writing or through practical instruction – is drawn from our own experience and can therefore only be considered as a guideline. Because we continuously look for ways to improve our products, end users are advised there could be future changes in material characteristics.

Attention: Nacera® Hybrid is already a fully polymerised material and must not be sintered/fired.

Hazard Notice:

Dust is released during processing which could cause respiratory damage, as well as irritation to the eyes and skin. Processing must only be performed with a fully functioning vacuum system. Additionally, always wear gloves, protective goggles and face masks.

Warning:

When processed and used properly, unwanted side effects from Nacera® Hybrid are extremely rare. However, immune reactions (such as allergies) or local paraesthesia cannot be entirely ruled out. If you discover unwanted side effects, discontinue use and contact immediately your physician and Nacera (or Nacera US, Doceram Medical).

When using this product, always consider the possibility of known cross-reactions or interactions between this medical product and existing substances in the mouth.

Contraindications:

Use of Nacera® Hybrid is contraindicated if:

- There is a proven allergy to Nacera® Hybrid ingredients
- The prescribed application technology is not possible
- The templates of the machine prescribed for processing the blanks/blocks cannot be maintained.

Indications:

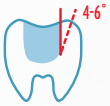
Production of inlays/onlays, veneers, partial crowns and crowns and (max. 3-unit) bridges in CAD/CAM technology.

Notes on construction:

Nacera® Hybrid is fixed in the holder provided and cleaned in advance in line with the instructions from the device manufacturer. Correct fitting must be ensured. The grinding/milling process and the associated machine templates must be sought from the respective machine manufacturer. Prior to commencing all work, one must ensure that the cutting sharpness of the cutters used for the planned milling work is adequate.

Do not fall below the following values:

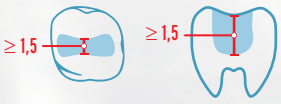
For crowns, bridges, inlays and onlays:
Preparation angle 4° to 6°



Cervical wall thickness: at least 0.6 mm
Occlusal wall thickness: at least 1.2 mm
Wall thickness under a supporting cusp: at least 1.5 mm
Connector cross sections in the anterior tooth region: 10 mm²
Connector cross sections in the posterior tooth region: 16 mm²

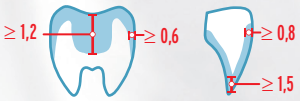
In order to increase the stability of the construction, a connector height must be chosen which is as large as is clinically achievable. General statics are to be observed.

Inlay:

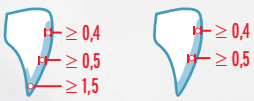


Partial crown/onlay:

Crown:



Veneer:



For veneers:
Cervical wall thickness: at least 0.4 mm
Labial wall thickness: at least 0.5 mm
Incisal wall thickness: at least 0.5 mm

The milled/ground works are separated while preventing damage. To avoid thermal damage, ensure low revolutions, minimum contact pressure and adequate cooling. The surface of the milled/ground works must be worked on like a conventional composite and polished for a high-gloss finish.

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Important: Nacera® Hybrid should always be processed with the prescribed templates of the machine manufacturer to prevent material overheating. Otherwise, material damage could occur, which could lead to a deterioration of its physical properties.

Surface Pre-treatment/ Modification:

Prior to staining or veneering Nacera® Hybrid restorations we recommend sandblasting the surface or lightly roughen first. Surface dust should then be removed with oil-free compressed air in a water-free environment. A commercially available, high-grade, light-curable bonding agent should be utilized when resin boding Nacera Hybrid.

Veneering and Characterization:

After surface conditioning, described under „Surface pre-treatment/ modification," veneering with. light-cured composites can be accomplished by following manufacturer instructions for use.

Adhesive Bonding:

Adhesive bonding is obligatory for Nacera® Hybrid. Light or dual-curing bonding composites must be used. Prior to bonding, the bonding surface of the restoration must be blasted with aluminium oxide powder (25-50 µm, 1,5 bar), cleaned in an ultrasound bath / steam jet and dried using oil-free compressed air. The light intensity of the polymerisation lamp used for curing should be checked prior to use (> 800 mW/cm^2).

When using the following products, an optimum marginal integrity was successfully proven through a debonding study*:

Restoration debonding agent: GC G-Multi Primer
Adhesive: GC G-Premio Bond (light-curing)
Bonding composite: GC G-Cem Link Force (light-curing)
Preparation and polishing: Fine-grain diamonds, composite polishers, goat hair brushes and cotton buffing wheels with GC DiaPolisher.

Always follow manufacturer instructions when using the above or, followed when using comparable products.

Note on storage and shelf life:

To be stored at approx. 5°C to 50°C.

The maximum shelf life is shown on the product package, and is valid for the prescribed storage temperature.

Troubleshooting:

Fault	Cause	Remedy
Milling/grinding process delivers unclean results/ surfaces	Use of incorrect tool	Appropriate tools (specially produced tools for hybrid materials)
Milling/grinding process delivers unclean results/ surfaces	Incorrect choice of templates	Check templates and re-configure if necessary
Milling/grinding process delivers inaccurate surfaces and geometries (fit)	Blank/block not fixed in the holder evenly. Impurities in the holder; tool wear	Remove impurities; fix blank/block evenly into the holder; replace tools
Heat generated on workpiece	Excessive tool revolutions	Note templates
Miller/grinder stops	Excessive forward force	Note templates

Nacera® Hybrid is only to be used by licensed dentists and dental technicians. When fabrication takes place in the dental laboratory, all of the aforementioned information should be provided to the dentist.

Safety and Disposal

Disposal of unused or undesired quantities of Nacera Hybrid should always follow all governing laws. Always refer to product safety data sheets (MSDS) prior to, during, or after processing to help ensure safety.

*Study can be requested.

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