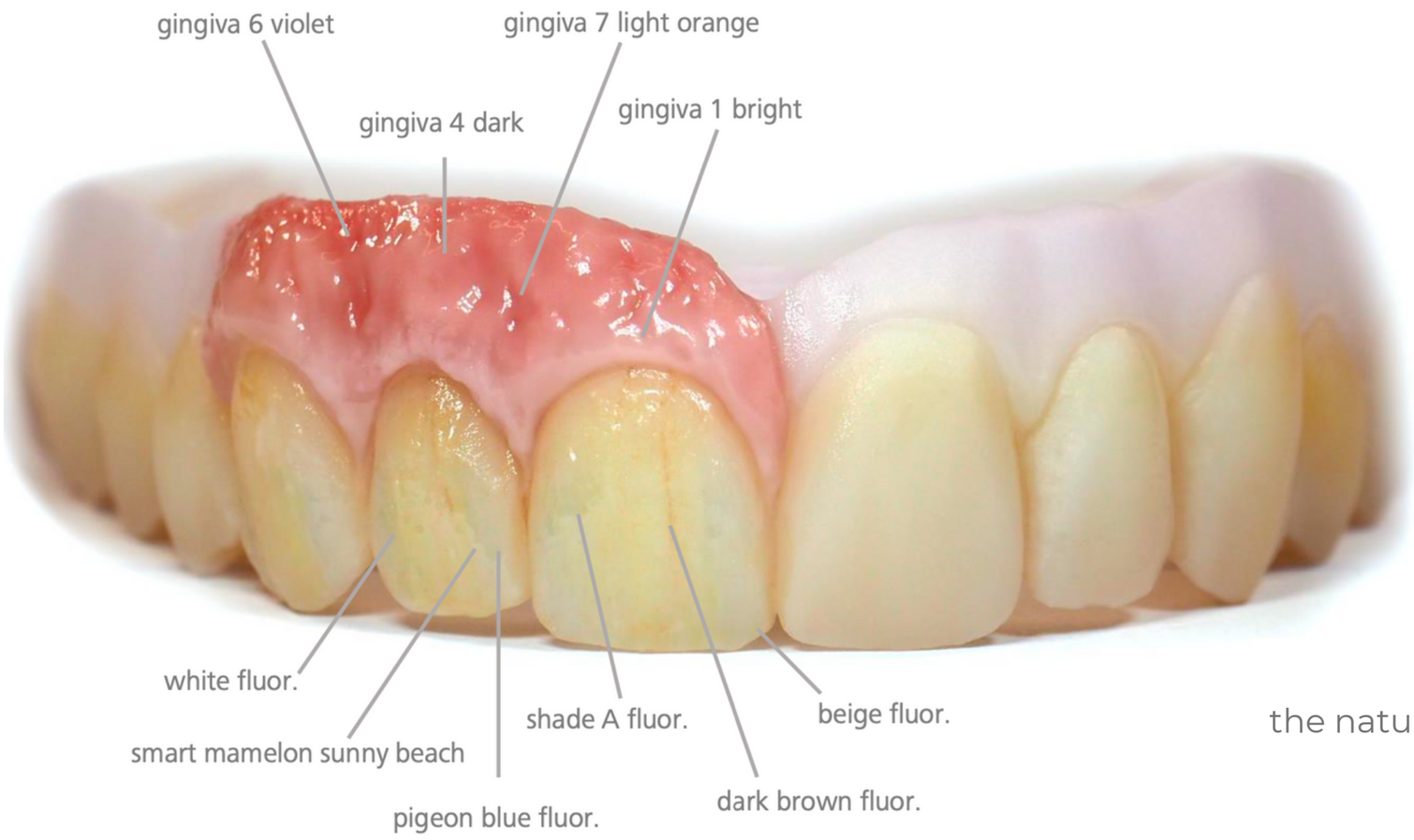
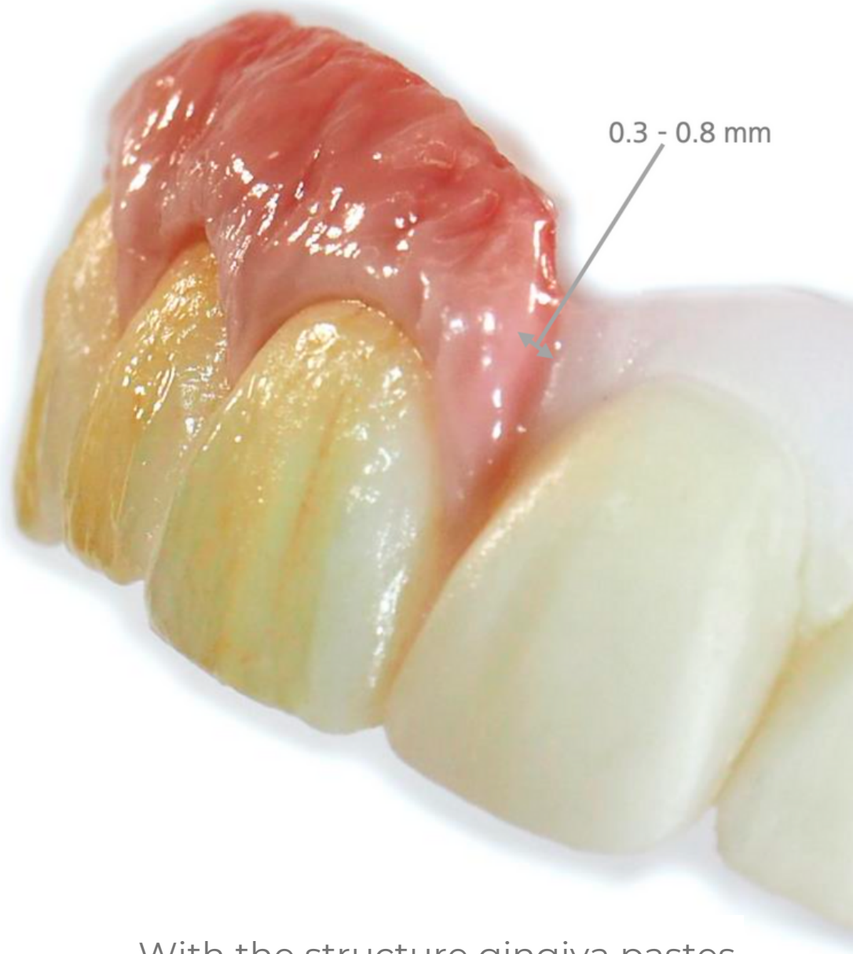
structure Gingiva

Application example





With the structure gingiva pastes,
the natural appearance of the gums can be reconstructed
perfectly in shape and color by individual design

structure Firing Chart

Caution: Underneath given firing temperatures were determined in the "Zubler Vario 300" furnace and are guidelines only. For other types of furnaces, it may be necessary to adapt the firing program on your own responsibility.

Firing parameters	Start temperature [°C]	Dry-on time [min]	Closing time [min]	Heating rate [K/min]	Vacuum start [°C]	(Vacuum end) Final temperature [°C]	(Without vacuum) Holding time [min]
HS10PC (lithium disilicate monolithic)	400	3	4	45	670	720	2
HS10PC (lithium disilicate applied with zirkon)	400	3	4	45	670	720	2
zirkon (layering ceramic)	400	3	4	45	670	720	2

Please note: For voluminous work, open the oven with an opening time of 2 minutes!
Note: With multiple fires, the final temperature can be reduced by 10 - 20 °C depending on the degree of gloss! Depending on the degree of gloss, the final temperature can be increased by 10 - 20 °C during glaze firing!

Firing parameters	Start temperature [°C]	Dry-on time [min]	Closing time [min]	Heating rate [K/min]	Vacuum start [°C]	(Vacuum end) Final temperature [°C]	(Without vacuum) Holding time [min]
monolithic zirconia (Y-TZP)	400	3	4	45	670	770	1
classic 920 (metal ceramic)	400	3	4	45	670	770	1
classic (metal ceramic)	400	3	4	45	670	770	1
zirkon press	400	3	4	45	670	770	1

Please note: For voluminous work, open the oven with an opening time of 2 minutes!
Note: With multiple fires, the final temperature can be reduced by 10 - 20 °C depending on the degree of gloss!

structure

Technical Data

structure pastes comply to all applicable standards for dental porcelains (DIN EN ISO 6872, DIN EN ISO 10993-5). All limits are undercut and thresholds are outperformed.

structure
physical -chemical properties acc. to DIN EN ISO 6872/ DIN EN ISO 10993-5

Property	Specification	Measured data
Coefficient of thermal expansion (25 - 475 °C) [$\cdot 10^{-6} \cdot K^{-1} \pm 0.5$]	2 ×: 9.5 4 ×: 9.5	2 ×: 9.5 4 ×: 9.5
Transformation temperature Tg [°C ± 20]	2 ×: 495 4 ×: 495	2 ×: 495 4 ×: 495
Bending strength [MPa]	≥ 50	145 - 150
Solubility [µg/cm²]	< 100	19 - 35
Radioactivity [$Bq \cdot g^{-1}$ U^{238}]	< 1	Complies*
Cytotoxicity	No Cytotoxicity	Complies**

*) covered by report 170231-20-A, 17-02-01, mds, D-Gilching
**) covered by analysis report 17-10238, 17-01-20, FZ Jülich, D-Jülich

LFU structure shades & stains
physical -chemical properties acc. to DIN EN ISO 6872/ DIN EN ISO 10993-5

Property	Specification	Measured data
Coefficient of thermal expansion (25 - 450 °C) [$\cdot 10^{-6} \cdot K^{-1} \pm 0.5$]	2 ×: 10.0 4 ×: 10.0	2 ×: 9.8* 4 ×: 9.5*
Transformation temperature Tg [°C ± 20]	2 ×: 460 4 ×: 460	2 ×: 455* 4 ×: 455*
Bending strenght [MPa]	≥ 50	> 130*
Solubility [µg/cm²]	< 100	Complies*
Cytotoxicity	No Cytotoxicity	Complies**
Radioactivity [$Bq \cdot g^{-1}$ U^{238}]	< 1	Complies***

*) data for base material
**) coverd by report 170231-20-C, 17-02-01, mds, D-Gilching
***) analysis report 17-10237, 17-01-20, FZ Jülich, D-Jülich

structure

Indication

The **structure** layering paste is only intended for dental applications and for use by trained professionals.

structure is indicated only for the use with following substructure

1. Monolithic tetragonal stabilized zirconia (Y-TZP) with a thermal expansion of approx. 10.6 · 10^{-6} · K^{-1} (25 - 500 °C).
    a. Tetragonal stabilized zirconia (Y-TZP) with a thermal expansion of approx. 10.6 · 10^{-6} · K^{-1} (25 - 500 °C) veneered with estetic ceram **zirkon**.
2. Monolithic lithium disilicate glass ceramic materials with a thermal expansion of approx. 10.0 · 10^{-6} · K^{-1} (25 - 500 °C), for example estetic ceram **HS10PC** pressable glass ceramic.
    a. Lithium disilicate glass ceramic materials with a thermal expansion of approx. 10.0 · 10^{-6} · K^{-1} (25 - 500 °C), for example estetic ceram **HS10PC** pressable glass ceramic
3. Restorations made from estetic ceram **zirkon press**.
4. PFM restorations veneered with estetic ceram, **classic** and **classic 920**

Contraindication

1. Combinations with ceramic materials outside of estetic ceram's indicated products.
2. Use of non-approved framework materials.
3. Sharp edges and corners on the framework or non-anatomically reduced frame shapes.
4. Dental ceramic and all ceramic restorations are not recommended for patients with bruxism or parafunction.

structure

Chemical Composition

Pigmented glass ceramic paste preparation

structure mayor glass ceramic constituents:

SiO_2, Al_2O_3, K_2O, Na_2O, Li_2O, SrO, B_2O_3, CeO_2, ZnO

LFU structure shades & stains mayor glass ceramic constituents:

SiO_2, Al_2O_3, K_2O, Na_2O, Li_2O, CaO, SrO, B_2O_3, ZnO, F

Pigments:

inorganic pigments with ceramic host lattices

Mayor paste gel constituents:

1,3-Butandiol, water

Regulatory Information

structure pastes meet all requirements of applicable directives and regulations for medical devices. The manufacturing complies to a certified Quality Management System acc. **ISO 13485, annex 2** of **Medical Device Directive 93/42, annex IX, Chapter 1 of regulation (EU) 2017/745** and further international requirements.

Medical device classification acc. annex IX, rule 8 of MDD 93/42:	**IIa**
Medical device classification acc. annex VIII, rule 8 of MDR 2017/745:	**IIa**

UMDNS Code:	**16-187 Dental-ceramics**
MDR Code acc. MDCG 2019-14:	**MDT 2003, MDN 1103**
Classification acc. DIN EN ISO 6872:	**type 1, class 1**

structure

Warnings

Only to be used by trained personnel.

For use in clean working environments only!
Contamination of the desktop, the working plate, the preheating furnace or any additional materials as waxes or liquids especially with CoCr-alloy residues may cause discoloration of restorations.

When working on ceramic restorations safety glasses should be used.
Remove dust and fragments by suction.

Be careful of high firing temperatures. Danger of getting burnt! Use oven pincers and gloves!

Due to the different ceramic ovens available on the market, the firing conditions may differ. This must be taken into account and is under the responsibility of the client! The indicated firing temperatures are only APPROXIMATE VALUES!

Recommended storage conditions: 12-38 °C and normal air humidity 40-60%.

Store in closed original containers -protect from sunlight. Do not refill powder mixed with liquid into the container. Use clean and dry spoon, spatula or brush to take out paste from the containers.

Label Symbols

- Manufacturer
- Date of manufacture YYYY MM
- MD Medical Device
- LOT Batch code /LOT number
- REF Reference number
- UDI Unique Device Identification
- ⚠ Caution, consult instruction for use

Manufacturer Information

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