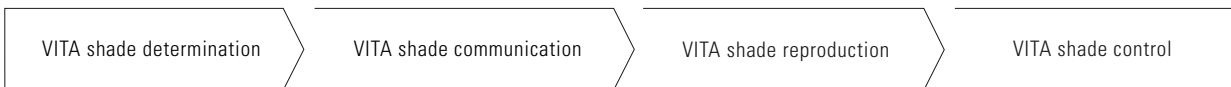


VITA YZ[®] SOLUTIONS

The system solution for precise, efficient and true-to-shade ZrO₂ reconstructions.



Date of issue: 04.20



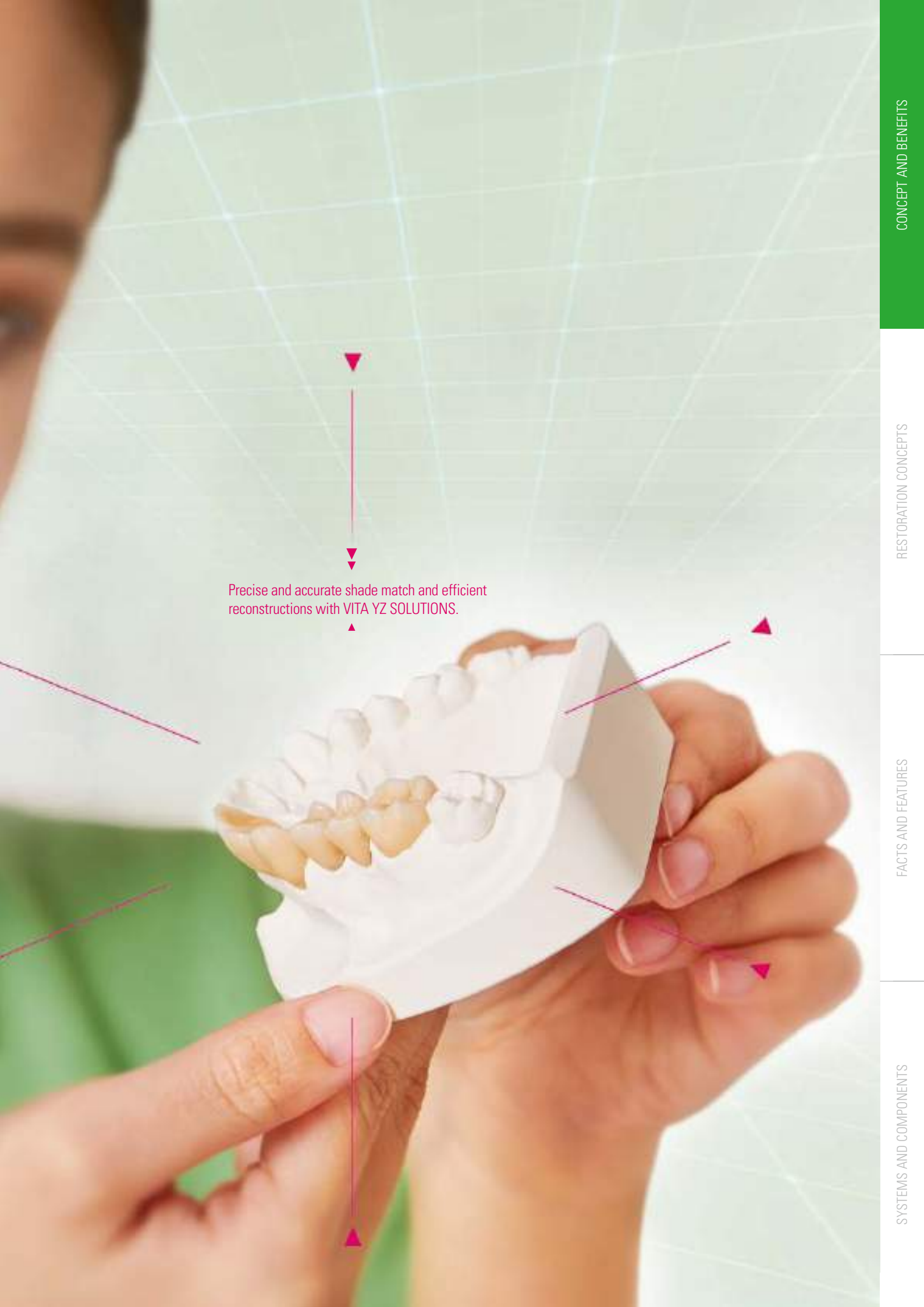
VITA – perfect match.

VITA



CONCEPT AND BENEFITS

VITA YZ[®] SOLUTIONS is a coordinated material system made of ZrO₂ blanks and the accompanying system components. This enables the precise and accurate shade production of fully / partially veneered and monolithic restorations. Discover the advantages!



Precise and accurate shade match and efficient reconstructions with VITA YZ SOLUTIONS.

VITA YZ[®] SOLUTIONS



What?

- VITA YZ SOLUTIONS includes zirconia blanks in four degrees of translucency with matched system components for reliable shade reproduction

What for?

- VITA YZ blanks can be used for the production of fully/partially veneered reconstructions and monolithic bridge restorations in the anterior and posterior tooth regions

With what?

VITA YZ blanks are available in several versions:

- T (Translucent), HT (High Translucent), ST (Super Translucent), XT (Extra Translucent)
- VITA YZ^{White} (unstained), VITA YZ^{Color} (monochromatic, tooth shades), VITA YZ^{Multicolor} (polychromatic, tooth shades)

SHADE
DETERMINATION



SELECTION OF BLANKS



CAD/CAM PROCESS



COLORING*



SINTERING



VENEERING*



CHARACTERIZING



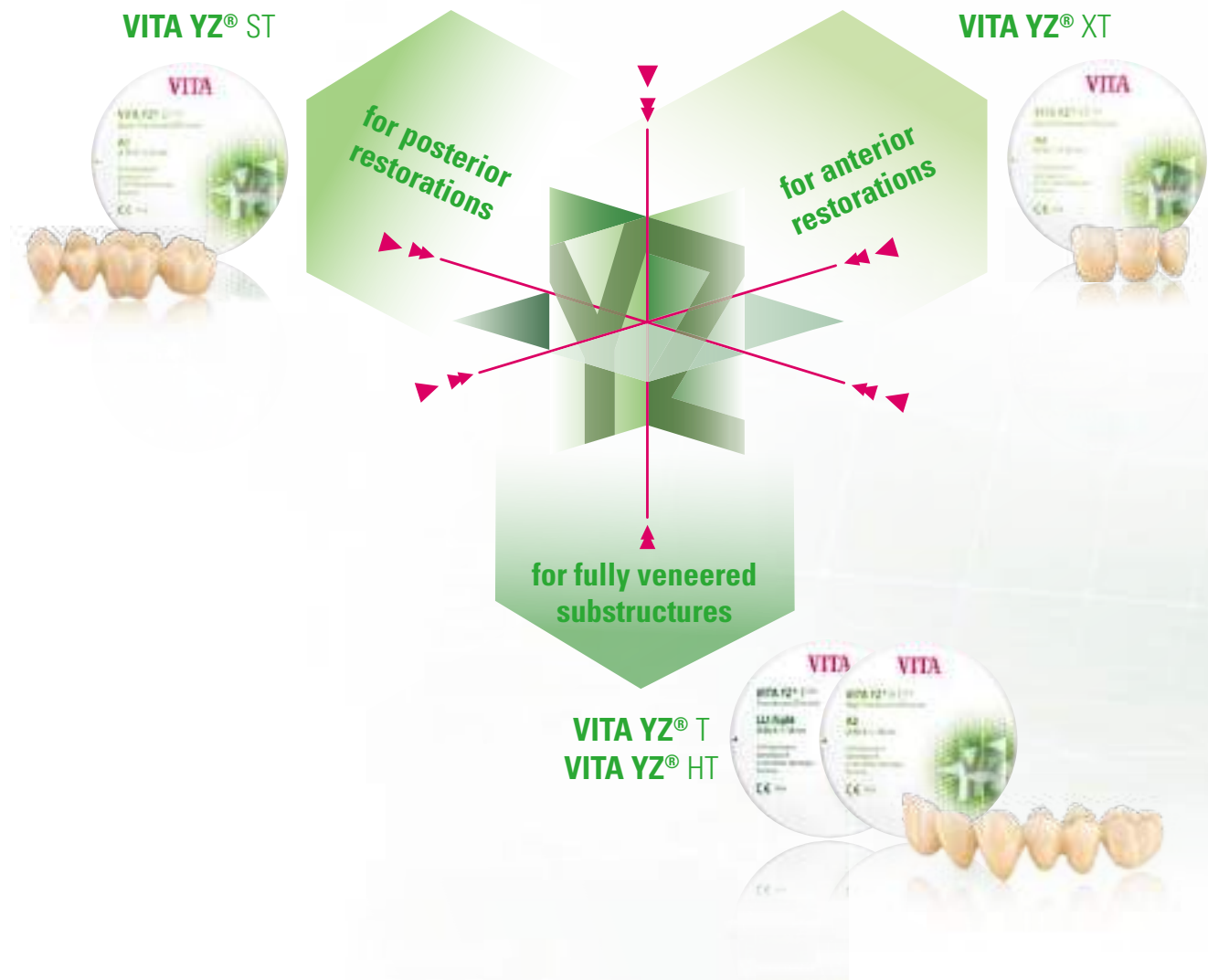
FIRING



*) Optional process steps: Coloring is not necessary for pre-colored blanks. Veneering is not necessary in the monolithic restoration design.

IDEAL SOLUTIONS FOR NUMEROUS TYPES OF RESTORATIONS

1. Blanks for numerous indications



VITA YZ® XT

- Extra translucent ZrO₂ blanks for the production of monolithic and partially veneered anterior tooth restorations

VITA YZ® ST

- Super translucent ZrO₂ blanks for the fabrication of monolithic and partially veneered posterior tooth restorations

VITA YZ® T/HT

- Translucent and highly translucent ZrO₂ blanks for natural, individual, fully veneered substructures

2. Blanks for every quality standard



VITA YZ® SOLUTIONS

- With the White, Color and Multicolor blank versions, as well as coordinated system components, there is an ideal solution for every esthetic performance class
- With pre-stained tooth shaded blanks (Color, Multicolor), a solid esthetic standard can be efficiently achieved, while reducing the production effort at the same time

THE ADVANTAGES



Highly accurate

- Create highly accurate restorations using material blanks with edge stability, homogeneous microstructures and tested sintering properties

Reliable

- Reliably reproduce tooth shades using a material system with ideally matched components

Efficient

- Achieve efficient, solid and esthetic results, thanks to tooth-shaded, (multi)color blanks with excellent shade matching to the VITA classical shade scale A1–D4®



1. Coordinated milling parameters

2. High edge stability

3. Tested sintering properties

Ideal milling strategies, high edge stability and proven sintering behavior ensure accurate, custom-fit reconstructions.

- For precise CAM processing of VITA YZ, we work with our CAD/CAM system partners to develop ideally matched milling parameters.
- For the high edge stability of VITA YZ, an optimized pre-sintering process is used in the production of blanks
- For an excellent fit, the sintering behavior of VITA YZ blanks is precisely determined and tested in all three dimensions (X, Y, Z), using measuring technology

A woman with dark hair tied back, wearing a green polo shirt, is looking down at a dental procedure. She is standing behind a patient who is lying down. The background is a light-colored wall with a grid pattern.

RESTORATION CONCEPTS

With **VITA YZ**[®] SOLUTIONS, a broad spectrum of restoration concepts can be implemented. From the highly individual reconstruction to the solid standard restoration, this system offers many esthetic options. Learn more now!



Using coordinated system components such as liquids and stains, to reliably reproduce natural tooth shades.

RESTORATION CONCEPTS – ESSENTIAL STEPS

FULLY VENEERED RESTORATION CONCEPT



1. CAM process



2. Coloring (optional)*



3. Sintering



4. Full veneering

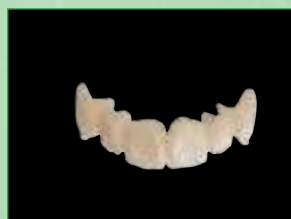
PARTIALLY VENEERED RESTORATION CONCEPT



1. CAM process



2. Coloring (optional)*



3. Sintering



4. Partial veneering

MONOLITHIC RESTORATION CONCEPT



1. CAM process



2. Coloring (optional)*



3. Sintering



*) Optional process step: Coloring is not necessary for precolored blanks.



5. Staining/Glazing



6. Final result



5. Staining/Glazing



6. Final result



4. Staining/Glazing



5. Final result



A man with short, graying hair and a goatee, wearing a white lab coat over a light-colored collared shirt, is shown in profile from the chest up, looking towards the right. The background is a soft, out-of-focus green and white. A thin green horizontal line is positioned above the text.

FACTS AND EVIDENCE

VITA YZ[®] SOLUTIONS is the system for consistent, accurate, true-to-shade reconstructions of excellent quality. Discover the most important facts below.



Create reconstructions with ideal shade matching, fit and durability with VITA YZ SOLUTIONS.

THREE REASONS FOR THE RELIABLE REPRODUCTION OF SHADES

1. Ideally matched components for reliable shade reproduction



VITA YZ® SOLUTIONS

- is an integrated material system with perfectly coordinated components for the reliable reproduction of the natural play of shade
- includes liquids for coloring, stains and glaze materials for individualizing, veneering ceramics and firing units for stain/sintering firings

2. True-to-shade (Multi)Color blanks for efficient tooth-shaded restoration



VITA YZ[®] SOLUTIONS

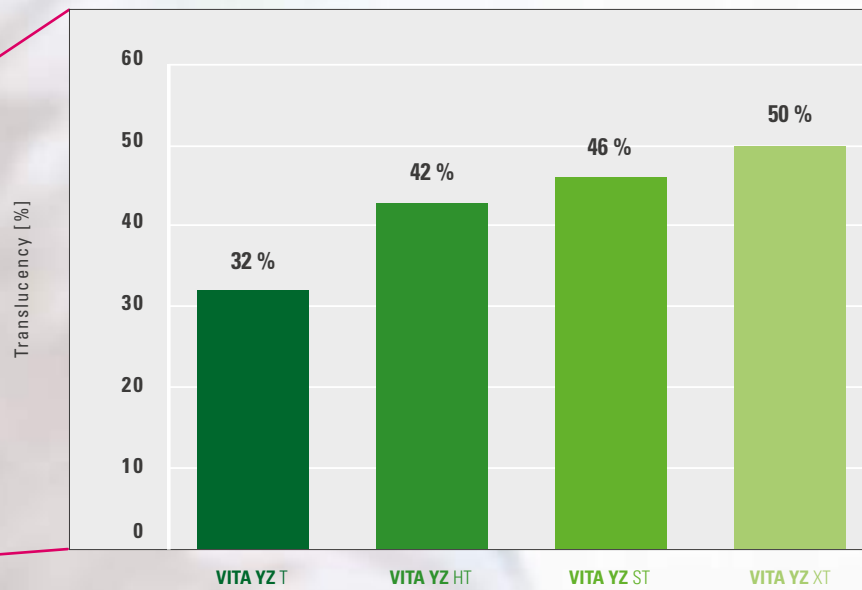
- enables efficient, tooth-shaded restorations, thanks to precolored (Multi)Color blanks with excellent shade matching to the VITA classical shade scale A1–D4[®]

THREE REASONS FOR THE RELIABLE REPRODUCTION OF SHADES

3. Carefully graduated translucencies for a vivid play of light



Translucency of the different VITA YZ materials



Source: External study, Measuring translucency using a spectrophotometer, Tosoh Corporation, (Technical Report, 08/2017, [1] see back of brochure)

VITA YZ® SOLUTIONS

- enables vivid, natural results, thanks to blanks in four carefully graduated translucencies (T, HT, ST, XT)
- achieves a translucency level (50%) with VITA YZ XT blanks that is comparable to traditional glass ceramics, according to measuring technology

TWO REASONS FOR ACCURATELY FITTING RESULTS

1. Precise milling results for an exact marginal fit



VITA YZ T^{Color}
(precolored material)



Competitor's zirconia
(precolored material)

Source: Internal study VITA R&D; Comparison of edge stability in restorations after CAM processing, (Gödiker, 01/2014, [2] see back of brochure)

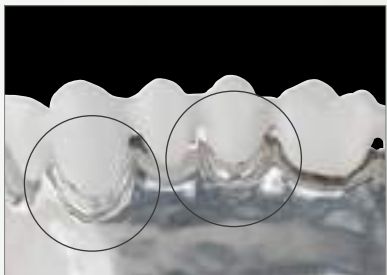
VITA YZ[®] SOLUTIONS

- thanks to the high edge stability of the blanks, very precise and accurate fitting restorations are possible, especially in regions with thinly tapering edges
- in the test, exhibits a very good edge precision after CAM processing (crown substructure made of VITA YZ T); however, in the competitor's material, marginal fractures are visible

2. Accurate fitting results, thanks to tested sintering parameters



VITA YZ T



Competitor's ZrO₂

Source: Internal testing, VITA R&D, Visual fitting control following the sintering process using a fitting model for VITA YZ T/competitor, (Gödiker, 10/2014, [2] see back of brochure)

VITA YZ® SOLUTIONS

- Enables very accurate results with multi-layered constructions, since the magnification factor is precisely determined using measuring technology
- in the test, exhibits a very good fit after the sintering process; however, the competitor's material, exhibits a poor fit

THREE REASONS FOR OUTSTANDING QUALITY AND DURABILITY

1. 100% German Dental Engineering for VITA ZrO₂ blanks



1. Outstanding material quality

- VITA works exclusively with materials of outstanding purity and quality. For blanks of the best material quality, each new batch of source material is comprehensively tested



2. Tested material parameters

- For an exact fit, the sintering behavior for each new batch of material is precisely determined using measuring technology and is continuously checked



3. Proven production procedure

- To ensure homogeneous sintering behavior, the blanks are made into their basic shape in a uniaxial pressing process and then isostatically compacted

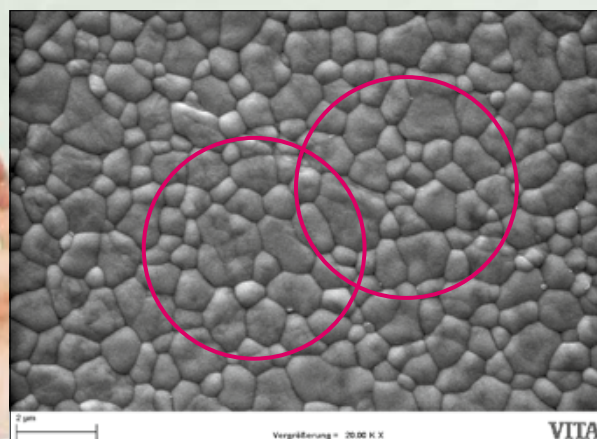


4. Greatest reliability

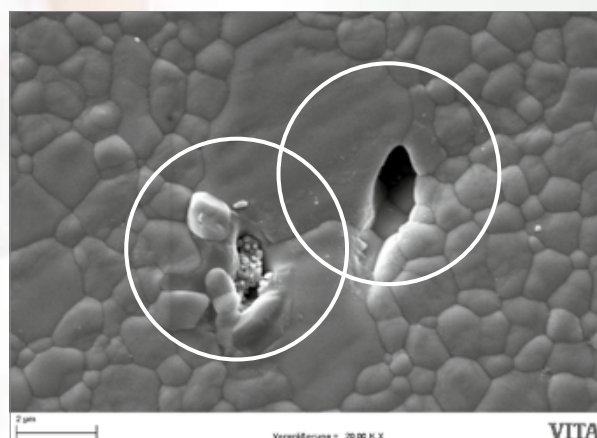
- Experienced specialists monitor ongoing compliance with the high production and quality standards for mechanical and optical properties

THREE REASONS FOR OUTSTANDING QUALITY AND DURABILITY

2. VITA quality blanks with homogeneous microstructure



VITA YZ at 20,000x magnification



Competitor's zirconia at 20,000x magnification

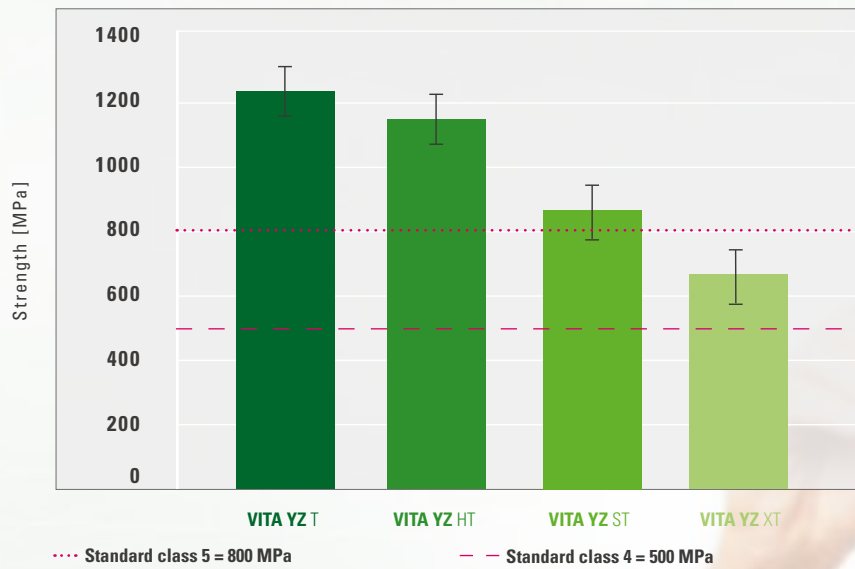
Source: Internal study, VITA R&D, SEM image analysis of the structure of densely sintered ZrO₂ samples after polishing and thermal etching. (Gödiker, 11/2014, [2] see back of brochure)

VITA YZ® SOLUTIONS

- Thanks to high manufacturing standards, VITA YZ blanks have a homogeneous microstructure without pores or defects, for reliable mechanical properties
- In SEM images, zirconium dioxides with lower quality standards sometimes show impurities, different grain sizes and microstructural defects

3. High resilience for good durability

3-point flexural strength of the different VITA YZ materials



Source: Internal study, VITA R&D, 3-point flexural strength of the different VITA YZ materials according to DIN EN ISO 6872:2015, (Gödiker, 08/2017, [2] see back of brochure)

VITA YZ® SOLUTIONS

- thanks to the excellent mechanical strength of the sintered workpieces, good clinical stability can be expected
- In the test series, workpieces show strength values which are sometimes far above the respective standard requirements



SYSTEMS AND COMPONENTS

VITA YZ[®] SOLUTIONS blanks are available in several versions, degrees of translucency and shades. There are matched system components for the blanks. Learn about all the different versions.



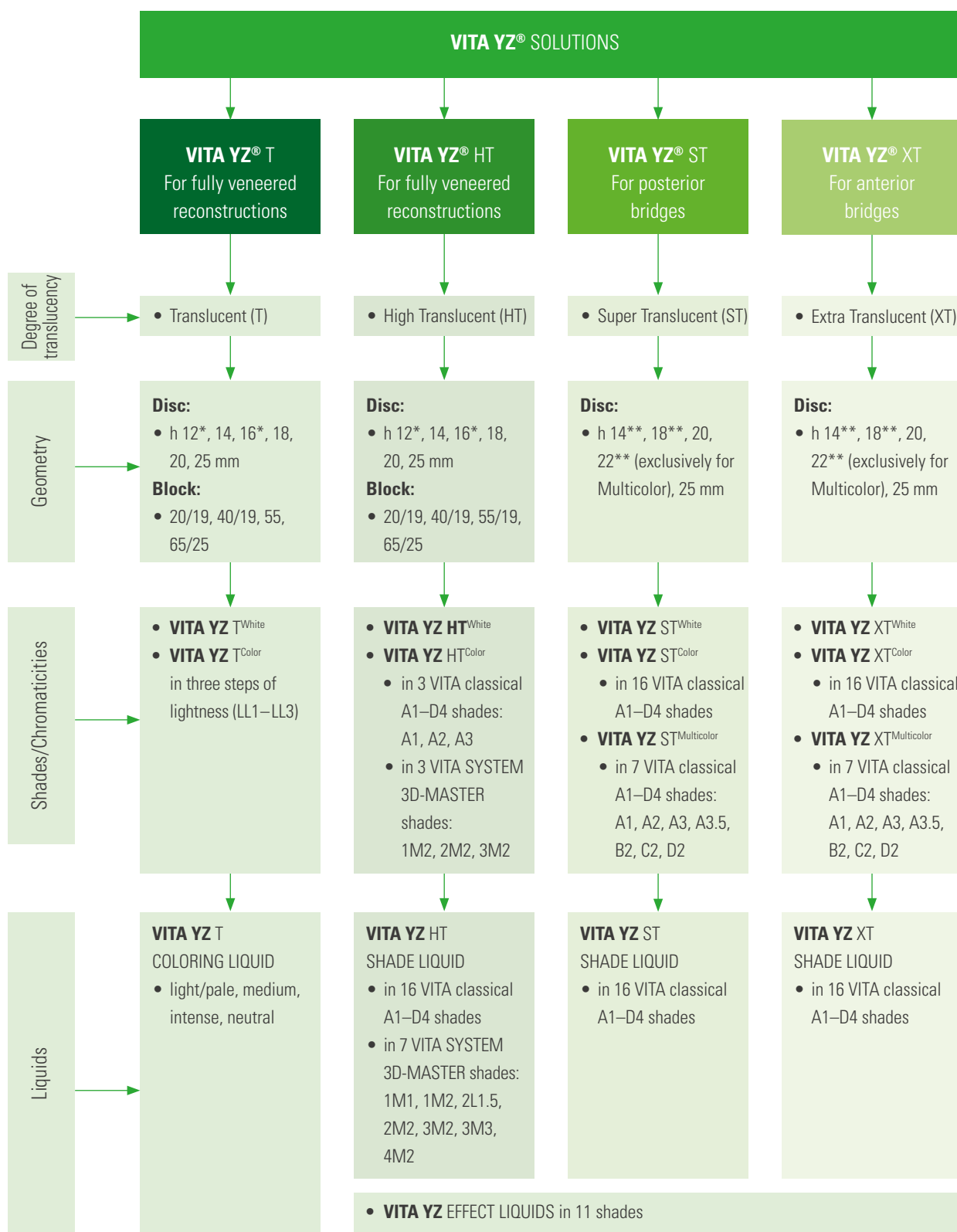
Create restorations simply, reliably and efficiently with the components of the VITA YZ SOLUTIONS kit.

VITA YZ[®] SOLUTIONS

Overview of system components



Overview of versions, geometries and shades



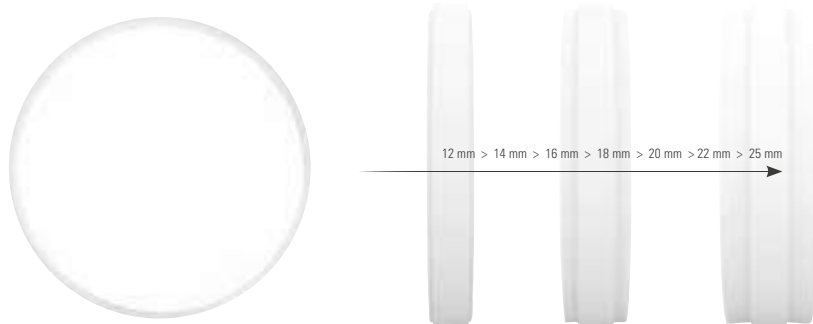
Note: The available range of geometries may differ with individual White and (Multi)Color variants.

*) These geometries are only available as uncolored VITA YZ^{White} versions.

***) VITA YZ^{Multicolor} is only available in: 14, 18, 22 mm

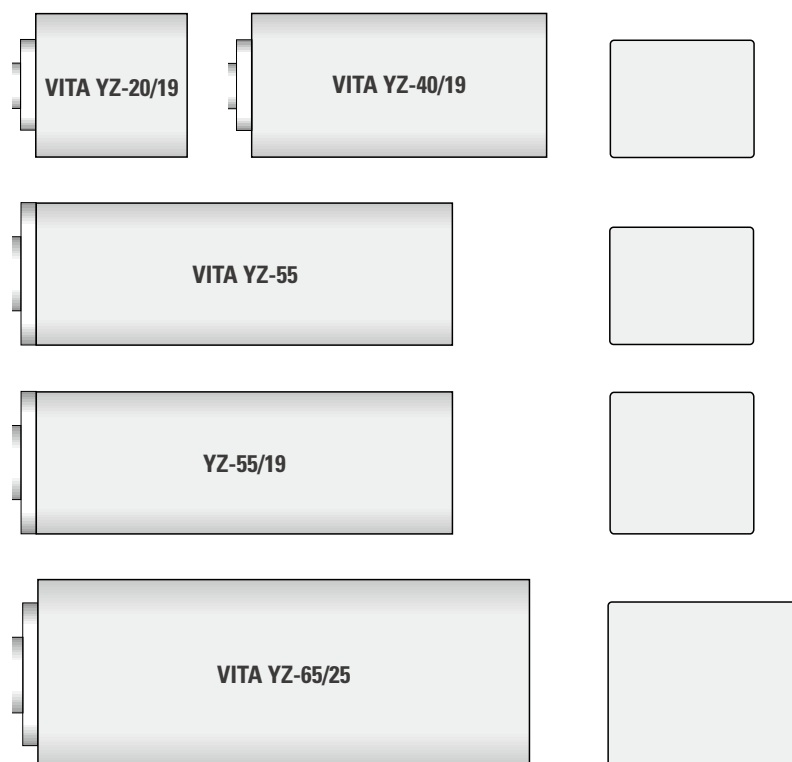
VITA YZ® SOLUTIONS

Available blank geometries



Discs (Ø 98.4 mm):

- **VITA YZ T:** h 12*, 14, 16*, 18, 20, 25
- **VITA YZ HT:** h 12*, 14, 16*, 18, 20, 25
- **VITA YZ ST:** h 14**, 18**, 20, 22** (exclusively for Multicolor), 25 mm
- **VITA YZ XT:** h 14**, 18**, 20, 22** (exclusively for Multicolor), 25 mm



Block:

- **VITA YZ T: 20/19:** 20 x 19 x 15.5 mm; **40/19:** 39 x 19 x 15.5 mm; **55:** 55 x 15.5 x 19 mm; **65/25:** 65 x 25 x 22 mm
- **VITA YZ HT: 20/19:** 20 x 19 x 15.5 mm; **40/19:** 39 x 19 x 15.5 mm; **55/19:** 55 x 19 x 19 mm; **65/25:** 65 x 25 x 22 mm

The geometry offering may differ for individual White and (Multi)Color versions.

*) These geometries are only available as uncolored VITA YZ^{White} versions.

***) VITA YZ^{Multicolor} is only available in: 14, 18, 22 mm

Recommended indications and esthetic considerations

VITA YZ® SOLUTIONS				
Degree of translucency	T Translucent	HT High Translucent	ST** Super Translucent	XT Extra Translucent
Indication*				
	●	●	×	×
	—	○	●	●
	—	○	●	●
	—	○	●	●
	—	○	●	●
	—	○	●	×
	○	●	●	●
	○	●	●	●
	○	●	●	×
	●	●	○	○
	●	●	○	○
	●	●	○	×
	●	●	○	○
	●	●	○	○
	●	●	○	×

● recommended ○ possible × not possible — not recommended

monolithic anterior restoration monolithic posterior restoration
 fully/partially veneered anterior restoration fully/partially veneered posterior restoration

*) VITA YZ T, HT and ST are approved for reconstructions on natural tooth stumps and implants. VITA YZ XT reconstructions are approved only for restorations on natural tooth stumps. The material-specific manufacturer's information on minimal wall thicknesses and connector cross-sections must be observed!
 **) VITA YZ ST reconstructions are limited in Canada to a max. of six units with a max. of two connected intermediate pontics.

VITA YZ® SOLUTIONS

System compatibility

VITA YZ® SOLUTIONS – SYSTEM SOLUTIONS*

VITA offers VITA YZ blanks with a specific holder system for the CAD/CAM system:

- inLab MC XL family and CEREC MC XL family** (Sirona Dental Systems GmbH)

VITA YZ® SOLUTIONS – UNIVERSAL SOLUTIONS*

VITA offers VITA YZ blanks in a universal disc geometry (Ø 98.4 mm) for the CAD/CAM systems:

- CORiTEC line (imes-icore GmbH)
- DMG ULTRASONIC line (DMG Mori AG)
- Röders RXD line (Röders GmbH)
- S&K Impression Series (vhf manufacture AG)
- inLab MC X5 (Sirona Dental Systems GmbH)



*) The range of VITA CAD/CAM material variants/geometries/shades available may vary for individual CAD/CAM system partners or systems.

**) CEREC MC XL applies only for VITA YZ HT, inLab MC XL family for VITA YZ T and VITA YZ HT

Note: VITA YZ DISCS can be processed with all open CAD/CAM systems, which are suitable to mill discs with a diameter of 98.4 mm (including the circumferential groove).

Ideal solutions FOR THE TREATMENT WORKFLOW



- For digital shade determination, use **VITA Easyshade V**, and for traditional shade determination, the **VITA Linearguide 3D-MASTER**, for example.



- Various geometries, translucency and chroma levels of **VITA YZ** blanks are available for CAD/CAM fabrication.



- For manual coloring of the milling results, use the **VITA YZ COLORING LIQUID (T)** or the respective **VITA YZ SHADE LIQUIDS (HT/ST/XT)**.



- Sinter the restoration made of **VITA YZ** with the **VITA ZYRCOMAT 6000 MS/6100 MS** sintering furnaces.



- Veneer all common substructure ceramics with the highly esthetic veneering ceramic **VITA LUMEX AC**.



- To characterize **VITA YZ**, use the **VITA AKZENT PLUS** stains/glazing materials.



- Fire the restoration made from **VITA YZ** with the **VITA VACUMAT 6000 M** firing furnace.



- Use the recommended polishing set for **VITA YZ**.



- Secure the zirconia restoration with full adhesive or self-adhesive using **VITA ADIVA LUTING SOLUTIONS**.

*) Optional: Coloring with VITA YZ COLORING LIQUID or VITA YZ SHADE LIQUIDS is an optional process step. This is not necessary with precolored YZ blanks.

**) Optional: Veneering with VITA VM 9 is an optional process step and is not necessary for the monolithic restoration concept.

WE ARE HAPPY TO HELP

> More information about the products and processing is also available at www.vita-zahnfabrik.com

Hotline Sales Support

Mrs. Carmen Holsten and her team (Internal Sales Department) will be glad to assist you with orders or questions about the delivery, product data and marketing materials.

► **Phone +49 (0) 7761 / 56 28 84**

Fax +49 (0) 7761 / 56 22 99

8:00 a.m. to 5 p.m. CET

E-mail: info@vita-zahnfabrik.com

Technical Hotline

If you have technical questions regarding VITA product solutions, please contact our technical consultant Mr. Ralf Mehlin.

► **Phone +49 (0) 7761 / 56 22 22**

Fax +49 (0) 7761 / 56 24 46

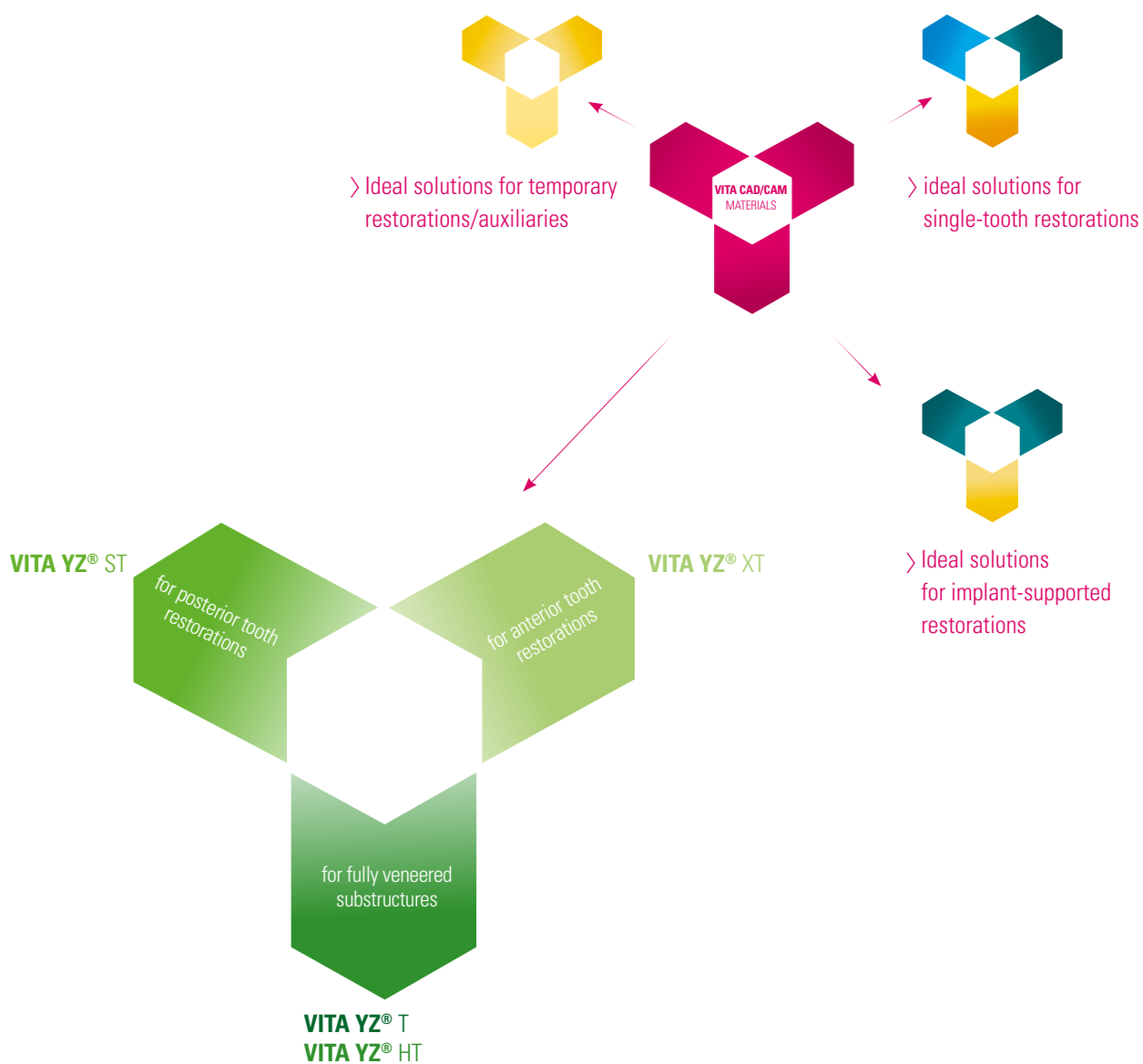
8:00 a.m. to 5 p.m. CET

E-mail: info@vita-zahnfabrik.com

> Additional international contact information can be found at www.vita-zahnfabrik.com/contacts



VITA CAD/CAM MATERIALS – for ideal solutions. Proven a million times over.



> **Ideal solutions for monolithic, partially and fully veneered bridges**

Practices and laboratories have been relying on VITA CAD/CAM materials for substructure fabrication for more than 15 years. In addition to the proven VITA YZ T/HT zirconias for fully veneered restorations, the range of materials also includes the particularly translucent VITA YZ ST/XT variants for fully anatomical and partially veneered reconstructions. Coloring liquids, stains and veneering ceramics are available for all material solutions – for maximum individuality, matched perfectly and from a single source.

More information about **VITA YZ SOLUTIONS**
is available at www.vita-zahnfabrik.com/cadcam

Bibliography:

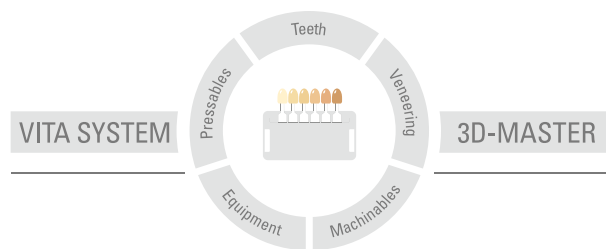
1. Tosoh Corporation, Japan, Technical Report, 2017

2. Internal studies, VITA R&D:

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Eva Kolb MSc., R&D project manager, Bad Säckingen

For detailed test data, see the technical and scientific documentation
VITA YZ® SOLUTIONS
Download at www.vita-zahnfabrik.com/yz



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After the publication of this information for use any previous versions become obsolete. The current version can be found at www.vita-zahnfabrik.com

VITA Zahnfabrik has been certified and the following products bear the CE mark **CE 0124**:

VITA YZ® T, VITA YZ® HT, VITA YZ® ST, VITA YZ® XT

Acknowledgements

We would like to thank the companies vhf camufacture AG (Ammerbuch, Germany) and imes-icore® GmbH (Eiterfeld, Germany) for providing the CAD/CAM systems.

VITA

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