Dear Customers,

Congratulations and thank you for choosing VITA LUMEX AC!

With VITA LUMEX AC, you get an all-ceramic veneering system for the veneering of all commonly available ceramic substructure materials and for the fabrication of restorations without a substructure, such as veneers.

To use VITA LUMEX AC safely and efficiently at all times, please read this information fully before first use.

We hope you enjoy VITA LUMEX AC and achieve great results!

Your VITA Product Management Team

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**Explanation of symbols:**

- System/technology info
- Note
- Firing
- Please note
- Process
- Links/Tutorials
- - Note
- - Tips
1. Material system/processes

2. Indication range of the ceramic materials

3. Preparation of the substructure

4. Standard full veneering
   4.1 Examples of a layering pattern
   4.2 Dentine application
   4.3 Enamel application, first dentine firing
   4.4 Shape correction, second dentine firing
   4.5 Finishing of the restoration
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   7.2 Shade reproduction after VITA classical A1–A4
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   8.1 Technical / physical data
   8.2 Chemical composition
   8.3 Indications
   8.4 Contraindications
   8.5 Notes on layer patterns
   8.6 General notes on handling
   8.7 Symbol explanations
   8.8 Safety at work / health protection
   8.9 VITA System Solutions
1. Material system / processes

- 1. Material system/ processes

- Note:
  - What? VITA LUMEX AC is a leucite-reinforced, glass-ceramic veneering system.
  - What for? For the veneering of all common all-ceramic substructure materials (zirconia, lithium disilicate and feldspar ceramics) and for the production of reconstructions without a substructure (e.g., veneers).
  - With what? VITA LUMEX AC includes: GINGIVA, OPAQUE, OPAQUE DENTINE, DENTINE and ENAMEL materials, as well as a multitude of effect materials (e.g., OPAL TRANSLUCENT, FLUO INTENSE and much more).
1. Material system / processes
2. Indication range of the ceramic materials

Process steps in the practice and laboratory

1. Shade determination
2. Preparation / impression taking
3. Substructure preparation
4. Wash application*
5. DENTINE Application
6. ENAMEL Application
7. Shape corrections
8. Characterization
9. Preparation for placement
10. Bonding

*) This process is not necessary for lithium disilicate substructures, but can be performed optionally.
## 2. Indication range of the ceramic materials

### VITA LUMEX® AC materials overview

#### Basic materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
<th>Shades</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPAQUE</td>
<td>For the masking of substructures, such as titanium abutments with translucent zirconias**</td>
<td></td>
</tr>
<tr>
<td>DENTINE</td>
<td>For the reproduction of the base shade in the case of minimum wall thicknesses</td>
<td></td>
</tr>
<tr>
<td>ENAMEL</td>
<td>For the reproduction of the play of shade and light in the tooth enamel</td>
<td></td>
</tr>
<tr>
<td>GINGIVA</td>
<td>For the reconstruction of gingival areas</td>
<td></td>
</tr>
</tbody>
</table>

#### OPAQUE material

- **Shades**: opaque-0, opaque-1, opaque-2, opaque-3, opaque-4, opaque-5

#### DENTINE material

- **Shades**: VITA classical A1–D4 and VITA SYSTEM 3D-MASTER*

#### ENAMEL material

- **Shades**: light, medium, intense, clear, fog

#### GINGIVA material

- **Shades**: pale-papilla, light-rose, nectarine, grapefruit, rosewood, purple, deep-red, dark-red

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* VITA SYSTEM 3D MASTER shades will be available beginning in the summer of 2020.
** OPAQUE and MARGIN materials will be available beginning in the fall of 2020.
### VITA LUMEX® AC materials overview

#### Effect / addition materials DENTINE

<table>
<thead>
<tr>
<th>Shades</th>
<th>cloudy-white</th>
<th>caramel</th>
<th>honey</th>
<th>copper</th>
<th>brown</th>
</tr>
</thead>
</table>

For the reproduction of effects in the cervical / dentine area

#### Effect / addition materials CHROMA INTENSE

<table>
<thead>
<tr>
<th>Shades</th>
<th>ivory</th>
<th>almond</th>
<th>hazelnut</th>
</tr>
</thead>
</table>

For the enhancement of chromaticity in the cervical area, especially in cases of thin layers

#### Effect / addition materials FLUO INTENSE

<table>
<thead>
<tr>
<th>Shades</th>
<th>arctic-white</th>
<th>cream</th>
<th>cappuccino</th>
<th>sand</th>
<th>sesame</th>
</tr>
</thead>
</table>

For the control of fluorescence from the depths

#### Effect / addition materials MARGIN

<table>
<thead>
<tr>
<th>Shades</th>
<th>straw-yellow</th>
<th>corn-yellow</th>
</tr>
</thead>
</table>

For ceramic shoulders and corrections in the margin area**

#### Effect / addition materials MAMELON

<table>
<thead>
<tr>
<th>Shades</th>
<th>saffron</th>
<th>honey-melon</th>
</tr>
</thead>
</table>

For the imitation of mamelons in the incisal area
### VITA LUMEX® AC materials overview

#### Effect / addition materials ENAMEL

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
<th>Shades</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANS-LUCENT</td>
<td>Universally applicable translucent enamel effect materials for the reproduction of shade effects in the incisal area</td>
<td>smoky-white, light-blonde, misty-rose, sunlight, sun-intense, waterdrop, deep-blue, foggy-grey</td>
</tr>
<tr>
<td>OPAL TRANS-LUCENT</td>
<td>For the reproduction of opal effects</td>
<td>opal-neutral, opal-sky, opal-azure</td>
</tr>
<tr>
<td>PEARL</td>
<td>For the reproduction of mother-of-pearl effects</td>
<td>shell</td>
</tr>
<tr>
<td>CORRECTIVE</td>
<td>For corrections after the glaze firing with a reduced firing temperature</td>
<td>neutral, desert</td>
</tr>
</tbody>
</table>
3. Preparation of the substructure

3.1 Implementation of the wash application

- Initial situation.
- Applying wash material.
- Step 2 ...
- Substructure after washbake.

**Note:**
- A washbake is recommended for a good bond of VITA LUMEX AC to the ceramic substructure.
  - Mix DENTINE materials with VITA LUMEX AC MODELLING LIQUID to obtain a thin aqueous mixture.
  - Use a brush to apply thinly, evenly and uniformly to the clean, dry substructure.
  - For more fluorescence or opacity from the depths, other materials such as FLUO INTENSE or OPAQUE DENTINE can also be used as an alternative.

**Please note:**
- This process is not necessary for lithium disilicate substructures, but can be performed optionally.

**Firing:**

<table>
<thead>
<tr>
<th>Recommended firing for zirconia substructures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-dry °C</td>
</tr>
<tr>
<td>400</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recommended firing for glass ceramic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-dry °C</td>
</tr>
<tr>
<td>400</td>
</tr>
</tbody>
</table>
4. Standard full veneering

4.1 Example of layering pattern A2

- **Note:**
  - Generally, standard full veneering is done with DENTINE and ENAMEL materials. However, OPAQUE DENTINE materials can also be used as an option.
  - In the following cases, the additional application of OPAQUE DENTINE materials is recommended:
    - to prevent the loss of shade on pontics, especially in the gingival area,
    - for the precise reproduction of shade-intensive spots, such as occlusal surfaces of molars,
    - to support the shade effect in cases of small space relations (< 0.8 mm).

- **Please note:**
  - The relationship of the layer thicknesses of DENTINE and ENAMEL can impact the shade intensity of the restoration. Shade intensive results are achieved with thicker layers of OPAQUE DENTINE and DENTINE materials – the thicker the layer of ENAMEL, the more pallid the end result.
4.2 Application of DENTINE

1. Prepared substructure.
2. Insulate the model.
3. Application of OPAQUE DENTINE.
4. Application of DENTINE Step 1 …
5. … Step 2
6. … Step 3.

Note:
- For easier removal of the restoration, insulate the model beforehand with VITA Modisol.
- To avoid differences in the shade of abutment crowns and pontics, OPAQUE DENTINE materials are applied to the basal surface and the cervical area of the pontic.
- In cases of insufficient space relationships (just at the cuspids), apply a thin layer of OPAQUE DENTINE before applying the dentine and enamel. This guarantees a precise reproduction of shade, especially in cases of layer thicknesses of less than 0.8 mm.
- For a good orientation with regard to size, shape and position of the teeth, apply the dentine fully anatomically.
4.3 Application of ENAMEL, first dentine firing

1. Reduce dentine using cut-back.
2. Apply ENAMEL ...
3. ... Step 2 ...
4. ... Step 3.
5. Perform interdental separation ...
6. ... Result after separation.
7. Mark the contact points.

Note:
- For an optimal enamel application, reduce the DENTINE in the upper third.
- For a uniform level of moisture, the material should be carefully wetted with a brush in the interproximal areas from the palatal side before the enamel material is applied.
- To complete the crown shape, ENAMEL is applied in several small quantities.
- To compensate for firing shrinkage, the size of the mould should be prepared somewhat larger.
- Before the first dentine firing, using a slightly moist separating knife, separate each of the individual bridge units interdentally up to the substructure.
- After removing the bridge from the model, complete the contact points with DENTINE and ENAMEL.
- Finally, the bridge is placed on a firing tray for the subsequent firing process.

Firing:

Recommended firing, first dentine firing*

<table>
<thead>
<tr>
<th>Pre-dry °C</th>
<th>min.</th>
<th>°C/min.</th>
<th>approx. temp. °C</th>
<th>min.</th>
<th>VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>6.00</td>
<td>50</td>
<td>760</td>
<td>1.00</td>
<td>on</td>
</tr>
</tbody>
</table>

*) Applies for both zirconia and glass-ceramic substructures.
4.4 Shape correction, second dentine firing

1. Result after the first dentine firing.
2. Isolate model.
3. Apply OPAQUE DENTINE / DENTINE.
4. Apply ENAMEL …
5. … Step 2.

Note:
- Insulate with VITA Modisol again before placing on the model. This way, any material applied in the basal area will not stick to the model.
- Make corrections of the shape starting from the cervical area with OPAQUE DENTINE / DENTINE and ENAMEL.

Firing:

<table>
<thead>
<tr>
<th>Pre-dry °C</th>
<th>min.</th>
<th>°C/min.</th>
<th>approx. temp. °C</th>
<th>min.</th>
<th>VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>6.00</td>
<td>50</td>
<td>755</td>
<td>1.00</td>
<td>on</td>
</tr>
</tbody>
</table>

*) Applies for both zirconia and glass ceramic substructures.
4.5 Finishing of the restoration

1. Grind contact point.
2. Correct shape ...
3. … Step 2.
4. … Step 3.
5. Final finished restoration.

Note:
- After firing, place on the model and grind the contact points.
- Make smaller shape corrections with a diamond tool; separate the interdental spaces using a diamond disk.
- Then incorporate natural surface structures (e.g., growth grooves or convex / concave surfaces).

Please note:
- Before the glaze / stain firing, clean the restoration thoroughly of grinding dust with a toothbrush under running water or with a steam jet.
4.6 Characterization / glazing of the restoration

Example of pattern for characterization.

1 Application of glaze.
2 Apply stains.

Note:
- Glaze the entire restoration with VITA AKZENT PLUS GLAZE LT as needed.
- To intensify the shade in the cervical area, for example, apply VITA AKZENT PLUS CHROMA STAINS.
- For the reproduction of individual shade characteristics, for example, apply VITA AKZENT PLUS EFFECT STAINS.

Firing:

<table>
<thead>
<tr>
<th>Pre-dry °C</th>
<th>min.</th>
<th>°C/min.</th>
<th>approx. temp. °C</th>
<th>VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>4.00</td>
<td>80</td>
<td>750</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*) Applies for both zirconia and glass ceramic substructures.
3. Preparation of the substructure

4. Standard full veneering

5. Partial veneering after cut-back

TECHNICAL DATA /
INFORMATION

SHADE REPRODUCTION /
FIRING

INDICATION RANGE OF THE
CERAMIC MATERIALS

MATERIAL SYSTEM /
PROCESSES

INDIVIDUAL FULL VENEERING

PARTIAL VENEERING AFTER CUT-BACK

STANDARD FULL VENEERING

TECHNICAL DATA /
INFORMATION
5. Partial veneering after cut-back

5.1 Example of layering pattern

- **Note:**
  - The dentine shade is formed by the cut-back substructure; the individual incisal characterization is done with ENAMEL and TRANSLUCENT ceramic materials.

- **Please note:**
  - When reducing the substructure in the incisal area, the manufacturer’s specifications on minimum wall thickness must be observed!
4. Standard full veneering  
5. Partial veneering after cut-back  
6. Individual full veneering
5.2 Washbake plus characterization

1. Anatomically reduced restoration.
2. Application of wash material ...
3. ... Step 2.
4. Then glaze / characterize the restoration.
5. Result after the firing.

Note:
- Use ENAMEL for the washbake; in cases of thin layers, VITA AKZENT PLUS GLAZE LT is also possible as an alternative for the washbake.
- Use VITA AKZENT PLUS CHROMA STAINS for intensifying the shade in the cervical area, for example.
- Use VITA AKZENT PLUS EFFECT STAINS for the reproduction of individual shade characteristics, for example.

Please note:
- This process is not necessary for lithium disilicate substructures, but can be performed optionally.

Firing:

Recommended firing for zirconia substructures

<table>
<thead>
<tr>
<th>Pre-dry °C</th>
<th>min.</th>
<th>°C/min.</th>
<th>approx. temp. °C</th>
<th>min.</th>
<th>VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>4.00</td>
<td>50</td>
<td>800</td>
<td>1.00</td>
<td>on</td>
</tr>
</tbody>
</table>

Recommended firing for glass ceramic

<table>
<thead>
<tr>
<th>Pre-dry °C</th>
<th>min.</th>
<th>°C/min.</th>
<th>approx. temp. °C</th>
<th>min.</th>
<th>VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>4.00</td>
<td>50</td>
<td>760</td>
<td>1.00</td>
<td>on</td>
</tr>
</tbody>
</table>

Links/Tutorials:
- Learn more in tutorial videos: vita-zahnfabrik.com/tutorial/lumexac/all/cutback
5.3 Application of ENAMEL

1. Result after layering with enamel.
2. Restoration after finishing.

Note:
- Apply several small portions of ENAMEL to complete the crown mould, beginning from the middle third of the crown.
  To compensate for firing shrinkage, the size of the mould should be prepared somewhat larger.

Firing

<table>
<thead>
<tr>
<th>Recommended firing first dentine firing*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-dry °C</td>
<td>→ min.</td>
</tr>
<tr>
<td>400</td>
<td>6.00</td>
</tr>
</tbody>
</table>

*) Applies for both zirconia and glass ceramic substructures.
5.4 Characterization / glazing of the restoration

Example of pattern for characterization.

Result after glaze application.

Result after stain application.

Note:
- Glaze the entire restoration with VITA AKZENT PLUS GLAZE LT as needed.
- To intensify the shade in the cervical area, for example, apply VITA AKZENT PLUS CHROMA STAINS.
- For the reproduction of individual shade characteristics, for example, apply VITA AKZENT PLUS EFFECT STAINS.

Please note:
- The use of glazing materials is optional; see Firing, Glaze Firing, chapter entitled "Shade reproduction / firing."

Firing:

<table>
<thead>
<tr>
<th>Pre-dry °C</th>
<th>min.</th>
<th>°C/min.</th>
<th>approx. temp. °C</th>
<th>min.</th>
<th>VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>4.00</td>
<td>80</td>
<td>750</td>
<td>1.00</td>
<td>–</td>
</tr>
</tbody>
</table>

*) Applies for both zirconia and glass ceramic substructures.
4. Standard full veneering

5. Partial veneering after cut-back

6. Individual full veneering

TECHNICAL DATA / INFORMATION

SHADE REPRODUCTION / FIRING

INDIVIDUAL FULL VENEERING

PARTIAL VENEERING AFTER CUT-BACK

PREPARATION OF THE SUBSTRUCTURE

MATERIAL SYSTEM / PROCESSES

INDICATION RANGE OF THE CERAMIC MATERIALS

MATERIAL SYSTEM / PROCESSES
6. Individual full veneering

6.1 Layering patterns: example of young anterior tooth in A2
5. Partial veneering after cut-back  
6. Individual full veneering  
7. Shade reproduction / firing
6.2 Individual veneering of young anterior tooth

1. Prepared substructure on model.
2. Result after the washbake with DENTINE A1.
3. Result after OPAQUE DENTINE application.
4. Apply DENTINE.
5. Perform cut-back.
6. Result after cut-back.
7. Apply MAMELON materials.
8. Apply EFFECT materials.
9. Apply ENAMEL.
10. Restoration after completion of layering.
12. Restoration after finishing.
13. Restoration characterized with VITA AKZENT PLUS
5. Partial veneering after cut-back  
6. Individual full veneering  
7. Shade reproduction / firing

**Tip**
- In the present example, the cervical area was intensified with CHROMA STAINS and also dusted with FLUO INTENSE materials.
- The advantage of dusting the surfaces with FLUO INTENSE is that it provides a porous surface, where the light penetrating the restoration breaks down naturally.

**Firing:**

**Recommended firing first dentine firing***  

<table>
<thead>
<tr>
<th>Pre-dry °C</th>
<th>min.</th>
<th>°C/min.</th>
<th>approx. temp. °C</th>
<th>min.</th>
<th>VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>6.00</td>
<td>50</td>
<td>760</td>
<td>1.00</td>
<td>on</td>
</tr>
</tbody>
</table>

*) Applies for both zirconia and glass ceramic substructures.

**Recommended firing - glaze firing with VITA AKZENT® PLUS GLAZE LT***  

<table>
<thead>
<tr>
<th>Pre-dry °C</th>
<th>min.</th>
<th>°C/min.</th>
<th>approx. temp. °C</th>
<th>min.</th>
<th>VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>4.00</td>
<td>80</td>
<td>750</td>
<td>1.00</td>
<td>–</td>
</tr>
</tbody>
</table>

*) Applies for both zirconia and glass ceramic substructures.

**Links/Tutorials:**
- Learn more in tutorial videos: [vita-zahnfabrik.com/tutorial/lumexac/all/young](http://vita-zahnfabrik.com/tutorial/lumexac/all/young)
6.3 Layering patterns: example of older anterior tooth in A3
6.4 Individual veneering of older anterior tooth

1. Applying wash material.
2. Result after washbake.
3. Apply OPAQUE DENTINE.
4. Build up the tooth shape using DENTINE.
5. Perform cut-back.
6. Apply effect materials …
7. ... Second step.
8. Apply ENAMEL.
9. Result after the firing.
10. Result after glaze application.
11. Result after characterization.

Firing:
- For information on the dentine and glaze firings, see 6.2.

Links/Tutorials:
- Learn more in tutorial videos: vita-zahnfabrik.com/tutorial/lumexac/all/middle
5. Partial veneering after cut-back
6. Individual full veneering

TECHNICAL DATA /
INFORMATION

SHADE REPRODUCTION /
FIRING

INDIVIDUAL FULL
VENEERING

PARTIAL VENEERING
AFTER CUT-BACK
6.5 Layering patterns: example of old anterior tooth in A3.5
5. Partial veneering after cut-back  
6. Individual full veneering  
7. Shade reproduction / firing
6.6 Individual veneering of old anterior tooth

1. Applying wash material.

2. Result after washbake.

3. Apply OPAQUE DENTINE.


5. Insert VITA AKZENT PLUS stains.

6. Apply effect materials.

7. Apply effect materials.

8. Apply ENAMEL.

9. Result after the firing.

10. Result after the finishing.

11. Result after glaze application.

12. Result after characterization.

Tip:
- VITA AKZENT PLUS stains are ideal for insertion during layering in order to achieve natural effects from the depths.

Firing:
- For information on dentine and glaze firings, see 6.2.
5. Partial veneering after cut-back

6. Individual full veneering

7. Shade reproduction / firing
### Firing parameters

<table>
<thead>
<tr>
<th>Programs</th>
<th>Predry. °C</th>
<th>δ min.</th>
<th>°C/min.</th>
<th>approx. temp °C</th>
<th>δ min.</th>
<th>°C</th>
<th>δ min.</th>
<th>Vac.</th>
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<td>3:00</td>
<td>33</td>
<td>700</td>
<td>5.00</td>
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<td>600</td>
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<tr>
<td>Zirconia washbake</td>
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<tr>
<td>First dentine firing</td>
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<td>50</td>
<td>760</td>
<td>1.00</td>
<td>500*</td>
<td>—</td>
<td>on</td>
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<tr>
<td>Second dentine firing</td>
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<td>500*</td>
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<td>80</td>
<td>750</td>
<td>1.00</td>
<td>500*</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Glaze firing VITA AKZENT PLUS GLAZE LT</td>
<td>400</td>
<td>4:00</td>
<td>80</td>
<td>750</td>
<td>1.00</td>
<td>500*</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Corrective firing with CORRECTIVE</td>
<td>400</td>
<td>4:00</td>
<td>50</td>
<td>725</td>
<td>1.00</td>
<td>500*</td>
<td>—</td>
<td>on</td>
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</tbody>
</table>

*) Long-term cooling down to the appropriate temperature is recommended for the last planned veneering ceramic firing. The lift position for VITA VACUMAT furnaces should be > 75%. Firing object must be protected against direct supply of air.

### Note:
- Based on the poor thermal conductivity of both materials (Y-TZP and veneering ceramic), higher residual stress can occur in this compound system than is known to typically occur in metal ceramics. This residual thermal stress in the veneering ceramic can be counteracted by means of slow cooling during the last firing cycle to below the transformation temperature of the veneering ceramic (for VITA LUMEX AC, approx. 550 °C).

### Please note:
- The user should consider this information only as a reference. If the surface quality or the degree of transparency or glaze does not correspond to the firing result that is achieved under optimum conditions, the firing procedure must be adjusted accordingly.
- The critical factors for the firing procedure are not the firing temperature indicated on the furnace display, but rather the appearance and the surface quality of the firing object after firing.
### Explanation of Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-dry °C</td>
<td>Start temperature</td>
</tr>
<tr>
<td>→ min.</td>
<td>Predrying time in minutes, closing time</td>
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<tr>
<td>°C/min.</td>
<td>Heating time in minutes, temperature rise rate in degrees Celsius per minute</td>
</tr>
<tr>
<td>approx. temp °C</td>
<td>End temperature</td>
</tr>
<tr>
<td>→ min.</td>
<td>Holding time for end temperature</td>
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<tr>
<td>°C</td>
<td>Long-term cooling</td>
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<tr>
<td>→ min.</td>
<td>Hold time for long-term cooling</td>
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<tr>
<td>Vac. min</td>
<td>Vacuum holding time in minutes</td>
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### 7.2 Shade reproduction according to VITA classical A1–D4

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<th>OPAQUE</th>
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<td>A2</td>
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<tr>
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<td>A3</td>
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<td>sand</td>
<td>sesame*</td>
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Note: The material classifications are only intended to provide reference values!  *) Mixing ratio 1:1
### 7.3 Shade reproduction according to VITA SYSTEM 3D-MASTER

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<tr>
<th>OPAQUE</th>
<th>OPAQUE DENTINE</th>
<th>DENTINE</th>
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<th>FLUO INTENSE</th>
<th>DENTINE MODIFIER</th>
<th>CHROMA INTENSE</th>
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</tr>
</tbody>
</table>

Note: The material classifications are only intended to provide reference values! *) Mixing ratio 1:1
### MARGIN
- straw-yellow
- saffron
- honey-melon

### MAMELON
- smoky-white
- light-blonde
- misty-rose
- sunlight
- sun-intense
- deep-blue
- waterfall
- foggy-grey

### TRANS-LUCENT
- opal-neutral
- opal-sky
- opal-azure

### OPAL TRANS-LUCENT
- shell

### PEARL
- pale-papilla
- light-rose
- nectarine
- grapefruit
- rosewood
- purple
- deep-red
- dark-red

### GINGIVA
- neutral
- desert
### 7.3 Shade reproduction according to VITA SYSTEM 3D-MASTER

<table>
<thead>
<tr>
<th>OPAQUE</th>
<th>OPAQUE</th>
<th>DENTINE</th>
<th>ENAMEL</th>
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8. Technical data/information

8.1 Technical / physical data

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<tr>
<th>Physical properties</th>
<th>Unit of measure</th>
<th>Value</th>
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<tbody>
<tr>
<td>CTE (25– 400 °C)</td>
<td>$10^{-6}$ K$^{-1}$</td>
<td>approx. 8.8</td>
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<tr>
<td>Solubility in acids</td>
<td>μg/cm$^2$</td>
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<tr>
<td>3-point flexural strength</td>
<td>MPa</td>
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8.2 Chemical composition

<table>
<thead>
<tr>
<th>VITA LUMEX AC</th>
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<tr>
<td>SiO$_2$</td>
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<tr>
<td>Al$_2$O$_3$</td>
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</tr>
<tr>
<td>K$_2$O</td>
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</tr>
<tr>
<td>Na$_2$O</td>
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<tr>
<td>B$_2$O$_3$</td>
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<td>CaO</td>
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<tr>
<td>Li$_2$O</td>
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**Note:**
- The technical/physical values given are typical measurement results and refer to in-house manufactured samples and measuring instruments in the company.
- If samples are prepared using different methods and measurement equipment, other measuring results may be obtained.
8.3 Indications

Note:
Indication range:
- Full and partial veneering of zirconia
- Full and partial veneering of lithium disilicate
- Partial veneering of feldspar ceramic
- Reconstruction without a substructure

Materials:
- Zirconia substructures (CTE approx. 10.0 to 10.5 x 10^{-6} K^{-1})
- Glass-ceramic substructures (CTE approx. 9.0 to 10.5 x 10^{-6} K^{-1})

8.4 Contraindications

Note:
- Substructures with unsuitable CTE values and material properties
- In patients with allergies or sensitivities to the ingredients
- In cases of insufficient space available

Please note:
- The veneering ceramic VITA VM 11 must be used for the product VITA SUPRINITY PC (zirconia reinforced lithium silicate ceramic).

8.5 Notes on layer thicknesses

Note:
- When preparing a ceramic veneer, a uniform layer thickness across the entire surface to be veneered must be ensured.
- The entire thickness of the ceramic layer, however, should not exceed 2 mm (the optimal layer thickness ranges from 0.7 to 1.2 mm).
8.6 General notes on handling

Note:

Information regarding general risks of dental treatments

- These risks are not specifically related to VITA products and their handling and are well known to all dental practitioners.
- Dental treatment and the integration of dental restorations entail the general risk of iatrogenic damage to hard tooth substance, pulp and/or oral soft tissue. The use of bonding systems and the integration of dental restorations involve the general risk of postoperative hypersensitivity.
- Product characteristics cannot be guaranteed if the instructions for use for the products are not followed. A product defect and an irreversible injury to the natural hard substance of the tooth, the dental pulp and/or the oral soft tissue may result.
- The success of a tooth restoration always depends on its fit onto the underlying tooth structure.
- The ability to produce a routinely smooth, sound and well-fitting restoration requires strict adherence to certain fundamentals.
- A deficient margin leads to plaque formation, resulting in gingival inflammation and marginal cracks, which can lead to secondary caries, sensitivity, gingival recession, cement dissolution and debonding or discoloration of the restoration.
- Our products must be used in accordance with the actual version of the instructions for use.
- Any misuse may cause damage resulting from incorrect handling or usage.
- The user is furthermore obliged to check the product before use with regard to its suitability for the intended area of applications.
- We cannot accept any liability if the product is used in conjunction with materials and equipment from other manufacturers that are not compatible or not authorized for use with our product.
- If serious incidents have occurred in connection with the product, they must be reported to VITA Zahnfabrik H. Rauter GmbH & Co. KG, and the competent authority of the Member State in which the user and/or patient is established.

8.7 Symbol explanations

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>VITA Zahnfabrik</th>
<th>Manufacturing date</th>
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<tbody>
<tr>
<td>Medical device</td>
<td><img src="image" alt="MD" /></td>
<td>Shelf life</td>
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<tr>
<td>For professionals only</td>
<td>Rx only</td>
<td>Product number</td>
</tr>
<tr>
<td>See Instructions for Use</td>
<td><img src="image" alt="i" /></td>
<td>Lot number (batch)</td>
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See Instructions for Use
### 8.8 Safety at work / health protection

<table>
<thead>
<tr>
<th>Safety at work and health protection</th>
<th>• When working with the product, wear suitable safety goggles/face protection, gloves and safety clothing.</th>
</tr>
</thead>
</table>
**8.9 VITA System Solutions**

- For digital shade determination, use *VITA Easyshade V*, and for traditional shade determination, use a *VITA shade guide*.

- Manufacture substructures using CAD/CAM from *VITA YZ SOLUTIONS zirconia* and *VITABLOCS feldspar ceramic* or by the pressing technique from *VITA AMBRIA lithium disilicate ceramic*.

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

- Characterize and glaze restorations with the *VITA AKZENT PLUS* stains/glazing materials.

- For veneer and stain firings, use the *VITA VACUMAT 6000 M* firing unit.

- Polish restorations with the recommended *VITA Karat Diamond Polishing Set*.

- *VITA LUMEX AC*-veneered restorations are bonded with full or self-adhesive bonding protocol with *VITA ADIVA LUTING SOLUTIONS*. 
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 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 5:00 p.m. CET
Email info@vita-zahnfabrik.com

Technical hotline
If you have technical questions concerning the VITA product solutions, you can contact our technical specialists Mr. Ralf Mehlin or Mr. Daniel Schneider.

Phone +49 (0) 7761 / 56 22 22
Fax +49 (0) 7761 / 56 24 46
8:00 a.m. to 5:00 p.m. CET
E-mail: info@vita-zahnfabrik.com
VITA VENEERING & STAINING SOLUTIONS –
For a lifelike play of shade and light in all facets of nature.

› VITA LUMEX® AC: Ideal shade fidelity. Excellent light dynamics. Precise processing

The leucite-reinforced, glass-ceramic veneering system for the veneering of common all-ceramic framework materials.
Please note: Our products must be used in accordance with the instructions for use. We accept no liability for any damage resulting from incorrect handling or usage. The user is furthermore obliged to check the product before use with regard to its suitability for the intended area of application. We cannot accept any liability if the product is used in conjunction with materials and equipment from other manufacturers that are not compatible or not authorized for use with our product and this results in damage. The VITA Modulbox is not necessarily a component of the product. Date of issue of this information: 12.19

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 €0124:

VITA LUMEX® AC, VITA AKZENT® Plus

The products/systems of other manufacturers mentioned in this document are registered trademarks of the respective manufacturers.

Rx Only

Acknowledgements

We would like to thank dental technician Marcio Breda (Vitória, Espírito Santo, Brasil) for the fabrication of various reconstructions, including the central processing steps.