

1. Indication

The **GR-17 Resin System** is a light-curable polymerizable resin intended to be used in conjunction with extra-oral light curing equipment. **printo[®] GR-17 temporary** is indicated for the fabrication, by additive manufacturing, of temporary anterior dental restorations. **printo[®] GR-17.1 temporary It** is indicated for the fabrication, by additive manufacturing, of temporary dental restorations, and for the fabrication, by additive manufacturing, of preformed denture teeth to be used in a denture.

2. Contraindication

printo[®] GR-17 temporary and **printo[®] GR-17.1 temporary It** restorations are contraindicated ...

1. ... if a patient is known to be allergic to any of the ingredients.
2. ... for bridges with more than one pontic.
3. ... for every application that is not part of the indication (see above).

3. Requirements

Software – Information available from:

DENTAL WINGS INC - 160 Rue St-Viateur E Suite 710, Montréal QC H2T 1A8 CANADA
3SHAPE A/S - Holmens Kanal 7, 1060 Copenhagen, Denmark

Hardware (3D Printing) – Information available from:

ASIGA - 2/19-21 Bourke Road, Alexandria, NSW 2015, Australia
Structo Pte Ltd - 60 Mac Pherson Road, #06-08A, The Siemens Centre, Singapore (348615)
MIICRAFT - 27 Queen St. East Suite 1401 Toronto, Ontario M5C 2M6, Canada
DAZZ3D - Rm K-2F, Building A, No. 9 Zhongshanyuan Rd., Shenzhen, China 518052

Hardware (Post Curing) – Information available from:

pro3dure medical (CD-1, CD-2) - Am Burgberg 13, D-58642 Iserlohn, Germany
Structo Pte Ltd - 60 Mac Pherson Road, #06-08A, The Siemens Centre, Singapore (348615)
NK Optik (Otoflash G171) - Isarstraße 2, 82065 Baierbrunn, Germany
Prusa Research a.s. (Prusa CW1) - Partyzánská 188/7a, 170 00 Praha 7, Czech Republic

4. Material

printo[®] GR-17 temporary and **printo[®] GR-17.1 temporary It** consists of functional methacrylic resins and inorganic fillers with particle sizes from 0.4 to 3 microns.

5. Geometric presetting

Connector areas (minimum):

anterior bridges 12 mm²
posterior bridges 14 mm²

Minimum wall thickness:

occlusal 1.5 mm (central fissure)
circumferential 1 mm

6. Material parameters

Radiation penetration depth controllable by exposure time
≥ 100 µm (4 mils)
≥ 125 µm (5 mils)

7. Manufacturing process (fig. 1–10, page 1)

1. Prepare data (CAD & build preparation).
2. Choose process parameters (build style, etc.).
3. Transfer prepared data to 3D printing device.
4. Prepare 3D printing – shake bottle.
5. Fill resin tank of 3D printing device.
6. Build the parts.
7. Clean parts (with IPA ≥ 97 % or equivalent cleaning agent) approx. 4 min. in an ultrasonic bath or equivalent device – precleaning recommended.
8. Dry parts (with compressed air until no residues of IPA or equivalent cleaning agent).
9. Post curing (10 min.): inert atmosphere recommended (use adequate light curing device).
10. Finish parts.

8. Individualization and cementation

The temporary restorations can be individualized by light curing composite materials. The reduction of the restoration should not exceed 0.3 mm (incisal and vestibular area). Please follow the instructions of the light curing composite manufacturers. For cementation common provisional dental cements (free of Eugenol) and adhesives are suitable. The inner areas of the crown should be conditioned by sandblasting or other commonly used techniques. Please follow the instructions and indications of the corresponding manufacturers.

9. Notice

Please follow the instructions provided by the software manufacturer in terms of parameter settings and design recommendations. Please follow the instructions provided by the hardware manufacturer in terms of parameter settings/printing & post curing recommendations. To avoid detrimental effects on material quality do not expose the liquid material to irradiation under any circumstances. Deviations from the described manufacturing processes or storing conditions may lead to different mechanical and optical properties of the material. Ensure personal protective gear during processing.

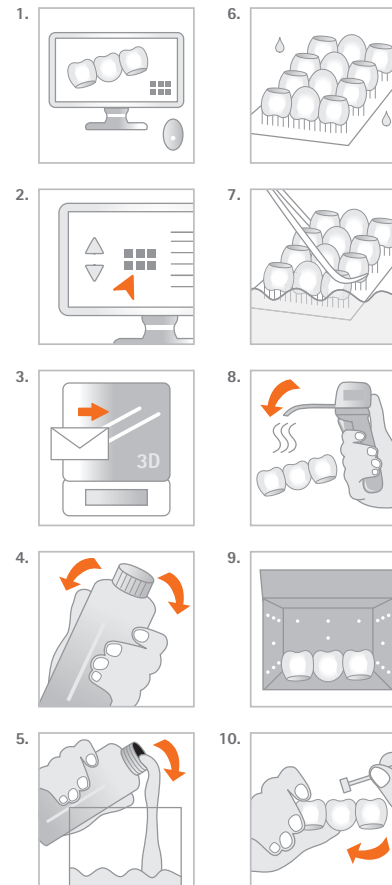
Caution: Polymerized resins are chemically resistant - avoid stains on clothing! Avoid any contact with skin and eyes! In case of accidental contact, rinse with adequate running water, consult a doctor if necessary. The lot number and the best before date are indicated on each packaging. In case of claims please always indicate the lot number of the product. Do not use the product after expiry of the best before date. Dispose of contents/container according to official regulations.

10. Hazard statements

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Harmful to aquatic life with long lasting effects.

**Generative Resin
GR-17 temporary
GR-17.1 temporary It**

Instructions for use · Gebrauchsanweisung
Mode d'emploi · Instrucciones de uso
Istruzioni per l'uso



Physical properties/
Physikalische Eigenschaften/
Propriétés physiques/
Propiedades físicas/
Proprietà fisiche:

- printo[®] GR-17 temporary**
- Flexural strength/ Biegefestigkeit/
Résistance à la flexion/ Fuerza flexible/ Resistenza alla flessione:
> 50 MPa DIN EN ISO 10477
 - Modulus of elasticity/ Elastizitätsmodul/ Module d'élasticité/ Módulo di elasticità/ Módulo de elasticidad:
> 2000 MPa DIN EN ISO 10477
 - Water absorption/ Wasseraufnahme/ Absorption de l'eau/ Absorción de agua/ Assorbimento dell'acqua: complies with/ erfüllt/ est conforme/ conforme a/ cumple con DIN EN ISO 10477
 - Solubility/ Löslichkeit/ Solubilità/ Solubilidad/ Solubilità:
complies with/ erfüllt/ est conforme/ cumple con/ conforme a DIN EN ISO 10477
 - Inorganic filler/ Anorganischer Füllstoff/ Charge inorganique/ Relleno inorgánico/ Riemplitivo inorganico: 20.0 m-%

- printo[®] GR-17.1 temporary It**
- Flexural strength/ Biegefestigkeit/
Résistance à la flexion/ Fuerza flexible/ Resistenza alla flessione:
> 100 MPa DIN EN ISO 4049
 - Modulus of elasticity/ Elastizitätsmodul/ Module d'élasticité/ Módulo di elasticità/ Módulo de elasticidad:
> 2000 MPa DIN EN ISO 4049
 - Water absorption/ Wasseraufnahme/ Absorption de l'eau/ Absorción de agua/ Assorbimento dell'acqua: complies with/ erfüllt/ est conforme/ conforme a/ cumple con DIN EN ISO 10477
 - Solubility/ Löslichkeit/ Solubilità/ Solubilidad/ Solubilità:
complies with/ erfüllt/ est conforme/ cumple con/ conforme a DIN EN ISO 10477
 - Inorganic filler/ Anorganischer Füllstoff/ Charge inorganique/ Relleno inorgánico/ Riemplitivo inorganico: 40.0 m-%

Ordering information/
Bestellinformationen/
Informations de commandes/
Información sobre pedidos/
Informazioni sull'ordine:

printo[®] GR-17 temporary
1 kg: λ ≤ 405 nm
A1 REF: D1001432
A2 REF: D1001433
A3 REF: D1001431
A3.5 REF: D1001615
B1 REF: D1001616
B2 REF: D1001627
bleach
REF: D1001629
500 g: λ ≤ 405 nm
A1 REF: D1001444
A2 REF: D1001445
A3 REF: D1001446
A3.5 REF: D1001619
B1 REF: D1001621
B2 REF: D1001628
bleach
REF: D1001630

printo[®] GR-17.1 temporary It
1 kg: λ ≤ 405 nm
A1 REF: D1001441
A2 REF: D1001442
A3 REF: D1001443
A3.5 REF: D1001617
B1 REF: D1001618
B2 REF: D1001623
bleach
REF: D1001624
500 g: λ ≤ 405 nm
A1 REF: D1001612
A2 REF: D1001613
A3 REF: D1001614
A3.5 REF: D1001620
B1 REF: D1001622
B2 REF: D1001625
bleach
REF: D1001626

* These data come from measurements of a representative sample that was determined as part of our quality assurance. / * Diese Daten stammen aus Messungen einer repräsentativen Probe, die im Rahmen unserer Qualitätssicherung ermittelt wurden. / * Ces données proviennent des mesures d'un représentant échantillon qui a été déterminé dans le cadre de notre assurance qualité. / * Estos datos provienen de mediciones de una representante muestra que se determinó como parte de nuestra garantía de calidad. / * Questi dati provengono dalle misurazioni di un rappresentante campione che è stato determinato nell'ambito della nostra garanzia di qualità.

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