

1. Indication

printo[®] GR-14.2 denture HI from pro3dure is a light-curable polymerizable resin intended to be used in conjunction with extraoral curing light equipment. **printo[®] GR-14.2 denture HI** is indicated for the fabrication and repair, by additive manufacturing, of full and partial removable dentures and baseplates.

2. Contraindication

printo[®] GR-14.2 denture HI restorations are contraindicated ...

1. ... if a patient is known to be allergic to any of the ingredients.
2. ... direct intraoral contact of uncured or partially uncured material.
3. ... for every application that is not part of the indication (see above).

3. Requirements

File Format

STL (see geometric presettings for CAD)

Hardware (3D Printing):

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):

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

Bonding agent for fixing denture teeth in the denture base:

VITA Zahnfabrik H. Rauter GmbH & Co. KG · Spitalgasse 3, D-79713 Bad Säckingen, Germany

4. Material

printo[®] GR-14.2 denture HI consists of functional (meth)acrylic resins, initiators, dyes and stabilisers.

5. Geometric presetting

Lingual Ridge ≥ 2.5 mm (Maxilla / Mandibula)
Palatal/Lingual ≥ 3.0 mm (Maxilla) / ≥ 2.5 (Mandibula)
Facial/Buccal ≥ 2.5 mm (Maxilla / Mandibula)

6. Material parameters

Radiation penetration depth controllable by exposure time
≥ 50 µm (4 mils)
≥ 100 µm (5 mils)

The **printo[®] GR-14.2 denture HI** should be used when higher strength is required.

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, until there are 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. Bonding of denture teeth

If using printed denture teeth – see additional IFU **printo[®] GR-17.1 temporary It** for details. In order to realize the optimal bonding of artificial teeth to the dental object, it can be necessary to roughen the surface of the denture and to use an appropriate adhesive. The suitability of a bonding agent or adhesive must be approved prior use. Recommended bonding agent is VITA VIONIC[®] BOND. The commonly used techniques and dental work steps must be carefully considered when manufacturing the dentures. Please follow the instructions and indications of the corresponding suppliers.

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 irritation. May cause respiratory irritation.

Generative Resin

GR-14.2 denture HI

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



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

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

printo[®] GR-14.2 denture HI

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■ Shore hardness D/
Shore-Härte D/
Dureté Shore D/
Durezza Shore D
(ISO 7619-1):
> 80**

1 kg:
λ ≤ 405 nm

■ Flexural strength/
Biegefestigkeit/
Résistance à la flexion/
Fuerza flexible/
Resistenza alla flessione
MPa (ISO 20795-1):
≥ 65

orange-pink/
orange-pink/
orange-rose/
rosa-naranja/
rosa-arancione
REF: D1001311

■ Bending module/
Biegemodul/
Module de pliage/
Módulo de flexión/
Modulo di piegatura
MPa (ISO 20795-1):
≥ 2000

light-pink/
hell-pink/
rose-clair/
rosa-claro/
rosa-chiaro
REF: D1001312

■ Water absorption/
Wasseraufnahme/
Absorption de l'eau/
Assorbimento dell'acqua
µg/mm³ (ISO 20795-1):
≤ 32

deep-pink/
dunkel-pink/
rose-profond/
rosa-profundo/
rosa-scurio
REF: D1001313

■ Solubility/
Löslichkeit/
Solubilité/
Solubilidad/
Solubilità
µg/mm³ (ISO 20795-1):
≤ 1,6

■ Fracture toughness/
Bruchzähigkeit/
Résistance à la rupture/
Resistencia a la fractura
Resistenza a rottura
(ISO 20795-1):
≥ 1.9 MPa·m^{1/2}

■ Total work of fracture/
Gesamtbrucharbeit/
Travail jusqu'à la rupture totale/
Trabajo total de fractura/
Lavoro totale di rottura
(ISO 20795-1):
≥ 900 J/m²

* 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.
** According to internal design and requirements specifications / ** Gemäß internen Design- und Anforderungsspezifikationen / ** Selon la conception interne et les spécifications des exigences / ** Según especificaciones de diseño y requisitos internos / ** Secondo la progettazione interna e le specifiche dei requisiti

↑↑ This side up. / Diese Seite nach oben. / Ce côté vers le haut. / Este lado hacia arriba. / Questo lato in su.

84°C / 18°C Temperature limit / Température limite / Limite de temperatura / Limite de temperatura / Limite di temperatura

CE 0044 CE mark / CE-Zeichen / CE marque / CE marca / CE marchio

Warning Achtung Attention Attention

Do not use if package is damaged. / Nicht verwenden, wenn das Paket beschädigt ist. / Ne pas utiliser si l'emballage est endommagé. / No lo use si el paquete está dañado. / Non usare se il pacchetto è danneggiato.

Consult instructions for use. / Gebrauchsanweisung beachten. / Consulter le mode d'emploi. / Consultar instrucciones de uso. / Consultare le istruzioni per l'uso.

Rx only QTY: 1EA

Keep away from sunlight. / Von Sonnenlicht fernhalten. / Éviter le soleil. / Mantener alejado de la luz solar. / Tenere lontano dalla luce del sole.

Medical Device / Medizinprodukt / Dispositif médical / Producto sanitario / Dispositivo medico

Use by date / Haltbarkeitsdatum / Utiliser par date / Utilizar por fecha / Usare entro la data

REF Catalogue number / Katalognummer / Numéro de catalogue / Número de catálogo / Numero di catalogo

LOT Lot number / Chargennummer / Numéro de lot / Número de lote / Numero di lotto

Date of manufacture / Herstellungsdatum / Date de fabrication / Fecha de manufactura / Data di produzione

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