

Generative Resin GR-10

Instructions

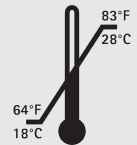
pro3dure medical GmbH

Am Burgberg 13
D - 58642 Iserlohn
Tel. +49 (0)2374 920050-0
Fax +49 (0)2374 920050-50
info@pro3dure.com
www.pro3dure.com

Product description:
photopolymerizable
resin for production
of earpieces by image
projection systems

Technical data:

- Colour:
various
- Density:
ca. 1.1 g/ml
- Viscosity:
ca. 0,7 Pa s
- Post cured
material: (depends
on postcuring unit)
Elastic modulus:
ca. 1700 MPa
Flexural strength:
ca. 90 MPa
Elongation at break:
ca. 10 %
Hardness:
ca. 80 Shore D
- Storage:



Ordering information:

Standard packing:
1 kg bottle,

clear-transparent
item no.: A1000800

reddish-transparent
item no.: A1000803

red-transparent
item no.: A1000802

blue-transparent
item no.: A1000804

beige-opaque
item no.: A1000850

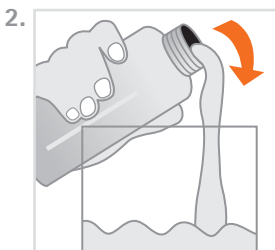
reddish-orange
item no.: A1000811

These data result from
measurements of a
representative sample,
which were determined
within the scope of our
quality assurance.



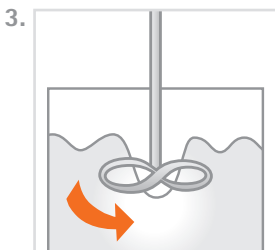
1. Product description

pro3dure's generative resin **GR-10** is a resin for the production of earmoulds and hearing aid shells based on a image projection system (≤ 405 nm). The formulation of **GR-10** is optimized for the requirements of a robust production guaranteeing constant high quality. The **GR-10** is successfully tested for biocompatibility, certainly meets all mechanical and application demands. The material can be used for build processes with layer thicknesses from 10 up to 100 μm . It is recommended to use the pro3dure medical curing device **CD-1** or **CD-2** for post curing.



2. Processing

- **GR-10** bottles should be well shaken before use (fig 1).
- Make sure that **GR-10** material is temperature adjusted up to 23 °C to 30 °C.
- Carefully pour **GR-10** into the vat of the image projection-unit (fig 2).
- Bubbles can be removed with a cleaned spatula or by a recoater routine.
- For the machine parameter adjustment please refer to the Technical Data Sheet.
- After the build process is finished a direct post treatment is recommended. If this cannot be guaranteed leave the produced objects in the liquid **GR-10** resin.
- After cleaning of the parts with isopropanol ≥ 97 % (approx. 3-5 min. in an ultrasonic bath) the objects are postcured in an adequate light curing unit (e.g. pro3dure's **CD-1** or **CD-2** for a period of 3-4 min.) in a protective gas atmosphere (N_2).
- The earmoulds and shells generated out of the generative resin **GR-10** can be coated and repaired as usual. For this purpose the pro3dure products e.g. L-1 UV lacquer are recommended.
- Impurities due to operation mistakes cannot be excluded. With respect to the low viscosity of the resin it is possible to filtrate the **GR-10**. It is recommended to filtrate and stir up the resin on a regular base. If opaque material is used additionally mix the content with a propeller mixer carefully. To avoid bubbles let **GR-10** rest for 30 min. before usage.



Contains: Alkoxilated bisphenole-A-dimethacrylate, initiators, dyes, stabilisers, and pigments

3. Important

- To avoid detrimental effects on material quality do not expose the liquid material to irradiation under any circumstances.
- Deviations from the described manufacturing process may lead to different mechanical and optical properties of the **GR-10** material.
- Ensure personal protective gear during processing.
- Caution: Polymerised 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, consulting a doctor if necessary.
- The lot number and the best before date are indicated on each **GR-10** 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.

Safety advice

pro3dure medical GmbH is not liable for any damages caused by improper application of the material. To be used by trained specialist personnel for the purpose indicated only.

GR-10