

# Generative Resin GR-12 LCD cast

## Instructions

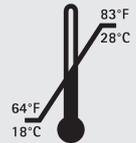
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**Product description:**  
photopolymerizable  
resin for the produc-  
tion of dental cast  
forms by LCD image  
projection systems  
( $\geq 405$  nm)

### Technical data:

- Colour:  
red
- Density:  
ca. 1.1 g/ml
- Viscosity:  
ca. 0,3 Pa s
- Green flex modulus:  
Elastic modulus:  
ca. 800 MPa  
Flexural strength:  
ca. 50 MPa  
Elongation at break:  
ca. 18 %
- Post cured  
material: (depends  
on postcuring unit)  
Elastic modulus:  
ca. 1600 MPa  
Flexural strength:  
ca. 80 MPa  
Elongation at break:  
ca. 5 %  
Hardness:  
ca. 85 Shore D
- Storage:

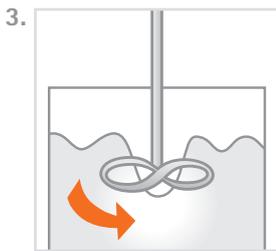
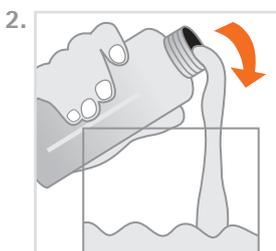


### Ordering information:

Standard packing:

1kg bottle,  
red  
item no.: D1000739

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-12 LCD cast** is a resin for the generative production of dental castforms based on LCD image projection systems ( $\geq 405$  nm). The formulation of **GR-12 LCD cast** is optimized for the requirements of a robust production guaranteeing constant high quality. The material can be used for build processes with layer thicknesses from 10 up to 100  $\mu$ m. It is recommended to use the pro3dure medical curing device **CD-1** or **CD-2** for post curing.

## 2. Processing

- **GR-12 LCD cast** bottles should be well shaken before use (fig 1).
- Make sure that **GR-12 LCD cast** material is temperature adjusted up to 23 °C to 30 °C.
- Carefully pour **GR-12 LCD cast** into the vat of the image projection unit (fig 2).
- Bubbles can be removed with a cleaned spatula or by a recoater routine.
- If it is possible, always store a bottle **GR-12 LCD cast** in your production unit in order to avoid temperature differences during refilling.
- For the build parameter adjustment please refer to the machine 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-12 LCD cast** resin.
- After cleaning of the parts with isopropanole  $\geq 97$  % (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.
- The dental objects generated out of the generative resin **GR-12 LCD cast** can be repaired and used with dental investment compounds as usual.
- Impurity due to operation mistakes cannot be excluded. With respect to the low viscosity of the resin it is possible to filtrate the **GR-12 LCD cast**. It is recommended to filtrate and stir up the resin on a regular base (fig 3). To avoid bubbles let **GR-12 LCD cast** rest for 1 hour before usage.

Contains: Urethanedimethacrylates, initiators, dyes and stabilisers.

## 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-12 LCD cast** 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-12 LCD cast** 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-12  
LCD cast**

idea to product.