

***Graphy***

# **Post Processing Manual**

**TC-85DAC**  
**(Direct Aligner)**  
**2021-08 Ver.**

# **Post Processing Manual**

## **(TC-85DAC)**

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# 1. About TC-85DAC

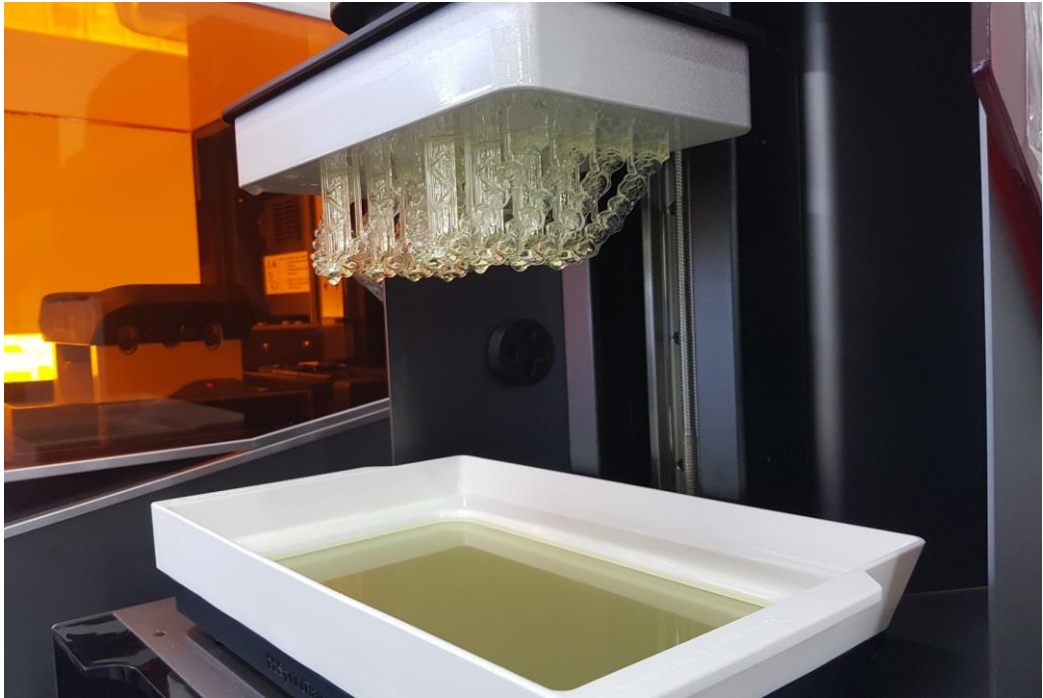
Tera Harz TC-85DAC is the world's first photopolymer 3d printable resin that can be used to directly produce clear aligner with 3d printer.

Tera Harz TC-85DAC has acquired KFDA, CE class2a medical device certification.

Comparing to the current clear aligner method, using Tera Harz TC-85DAC can save the time and increase the productivity. With Tera Harz TC-85DAC, a dental expert can customize the shape of aligner design and control the thickness partially. Therefore the orthodontic treatment can be more efficient and less painful for patients.

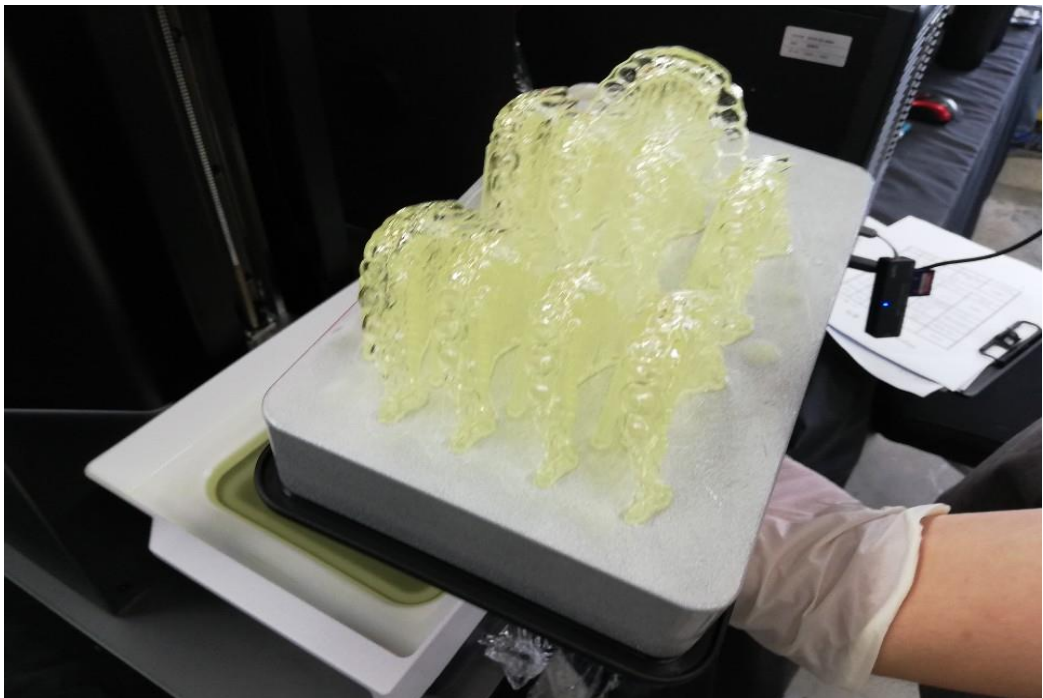


## 2. Post Processing



1) Detach the aligners from the plate of 3D printer.

- After completed the printing work, please remove the VAT than detach the platform from the printer





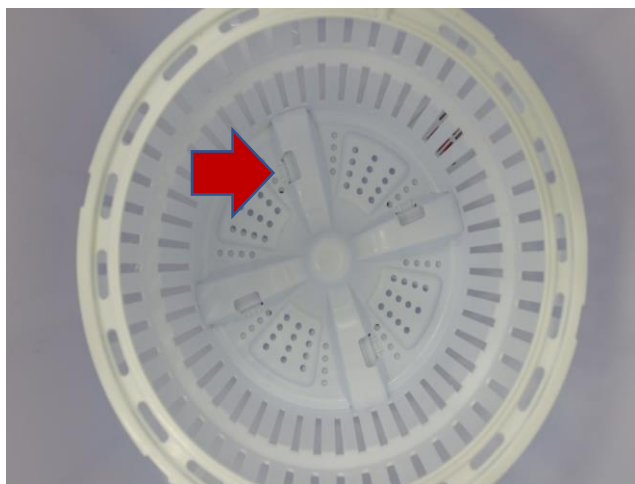
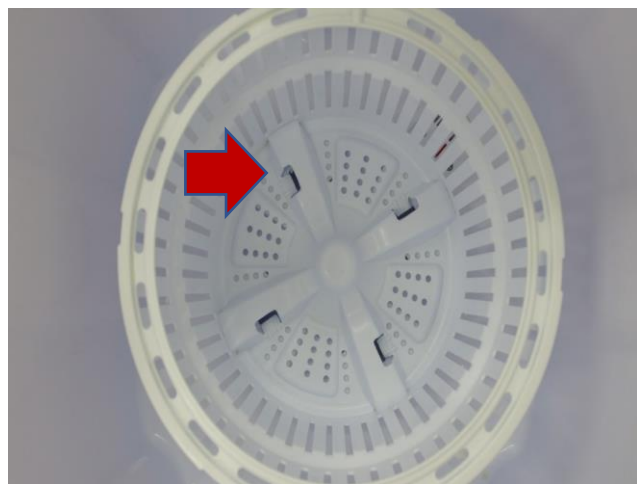
- Using the tool in the picture above, slowly remove the printed aligners from the platform.
- Please do not pressure aligner during the work. It can make the aligners damaged.

## 2) Using a centrifuge to remove the residual resins

- Please use the centrifuge provided from Graphy to remove the residual resin.
- Do not use any alcohol, solvent and water for cleaning the aligner. It turns aligner opaque and may change mechanical properties.



- This is the centrifuge that provided by Graphy Inc.



- Please check the basket if it installed correctly as above the image shown. If not completely installed, please make a rotation to right side until the basket is perfectly installed as the image above.





- As the above image, there are hooks enclosed.
- The hooks are for fixing the direct aligners to keep the right position.
- The hook can be also 3d printed using 3d printer.



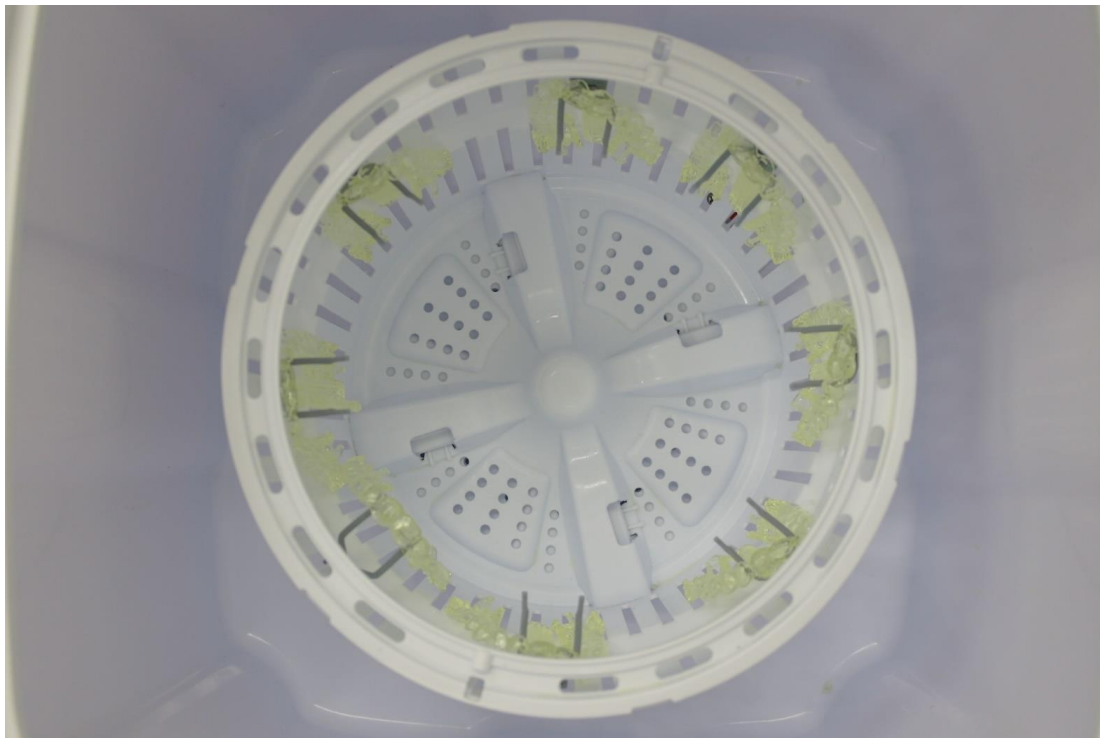
- Please install the hooks as the above image shown

\*If you need the Hook STL file, please ask to Graphy Inc.



- Please check the position of aligners in the basket and make sure the position that the inner side of the aligner toward the wall of the basket.
- Please do the process before detaching the supports from the aligners. Without the supports on the aligner, It can cause the deformation of direct aligners.

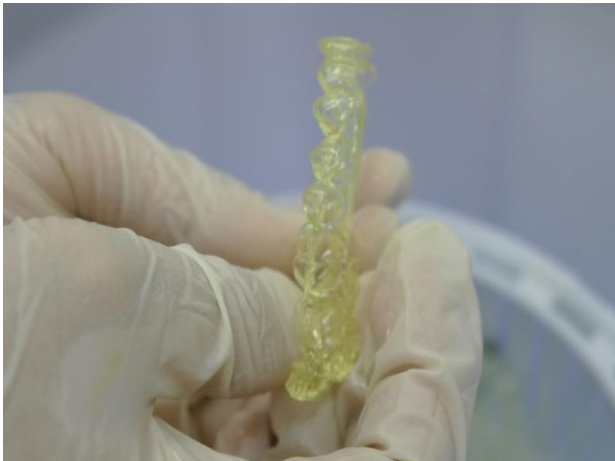
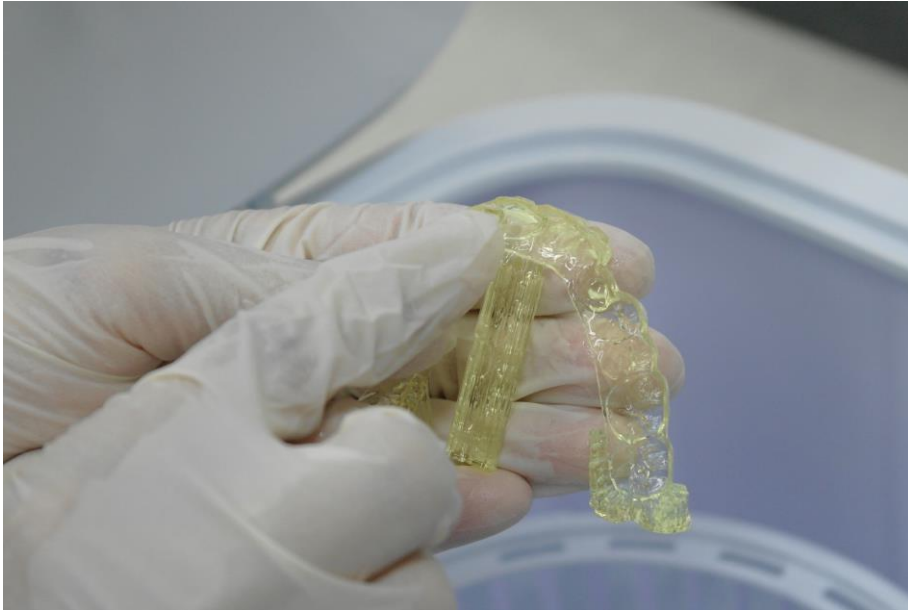




- Please hang up the aligners with the hooks as the above image.



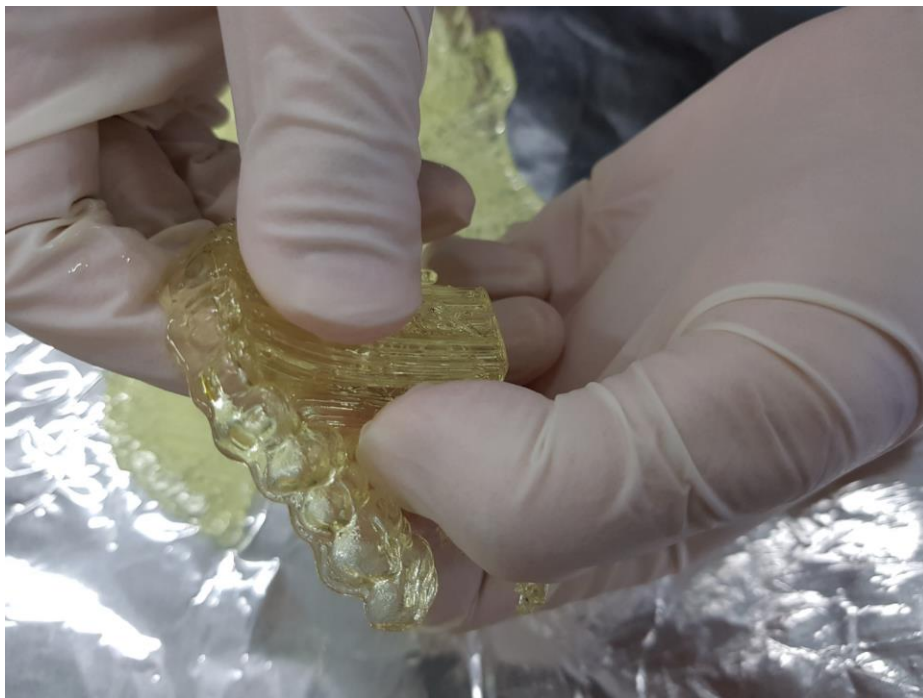
- After closing the lid(door), operate twice for 3 minutes for a total of 6 minutes.



- Please check the condition of the aligners after work and if there is some residual resins inside, please clean the resin with a spatula.
- If the residual resin is left inside of aligner, it can cause not fit with teeth.

### 3) Support Removal

- Remove the support after removing the residual resin.
- If the support is created as instructed in this description, it can be easily removed by hand, or it can be removed using tools such as nippers.



## 4) Nitrogen Curing

- The reason for nitrogen curing is to block oxygen as much as possible through nitrogen supply and to increase the post-curing reaction.



- Place the aligners with the inner side of the aligner facing up as shown in the picture above



#### 4) Nitrogen Curing



- Connect chamber containing the aligner to the nitrogen supply tube.

## 4) Nitrogen Curing



- Supply nitrogen at 10L/min for about 1 minute first.
- Curing 25 minutes at Level 3 after 1 minute nitrogen supply while maintaining nitrogen inflow.
- Turn the occlusal surface of the aligner face upwards and cure for an additional 25 minutes.



### 3. Handling Precautions for Direct Aligner

- 1) After completed post-curing process, rinse the aligner with some warm water and storage the aligner with a aligner case or package that can avoid light.
- 2) Tera Harz TC-85DAC has a function of memory shape.  
Therefore you can restore the original shape when it makes some deformation.
- 3) Do not bend and twist the aligner excessively. Damaged parts can get into your eyes. Do not eat small piece of broken parts. It can be stuck your airway.



\* Function of Shape Memory: Soak the aligner into hot water (the hottest tap water) for a while, the aligner can be restored to it's original shape of printing.