

Precautions for use

A. Resin

1. When storing the resin, keep it away from direct sunlight.
2. The resin should be stored away from inflammable sources.
3. Keep the resin at a storage temperature between 10 and 40 degrees.
The humidity should be around 30 ~ 50%.
4. Wear gloves (nitrile gloves) when handling the resin.
5. Shake the resin bottle sufficiently before using (discoloration may occur)
6. The resin already used for printing should not be put back into the bottle.
7. The resin remaining in the vat after printing should not be stored in the vat,
but stored in a separate container that does not transmit any source of light.
8. For continuous usage of resin, refer to IFU.
9. If the resin comes into contact with skin, immediately wash it off with running water.
10. For other precautions, refer to the IFU.
11. Block any UV light in the studio/printing room.

Precautions for use

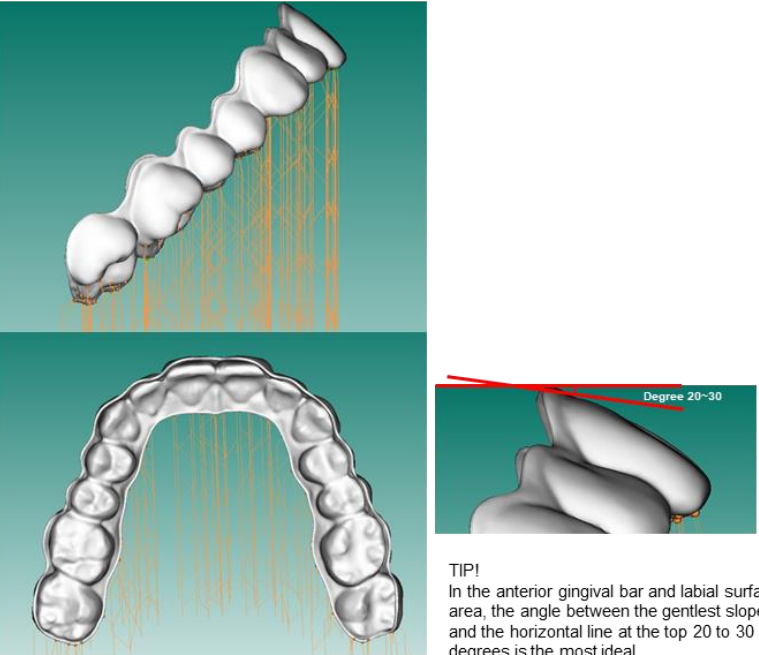
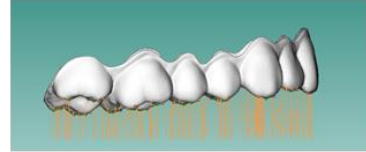
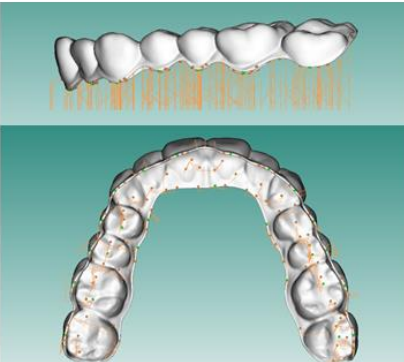
B. Set-Up

1. Graphy recommends 0.3mm of tooth movement per step when worn for 1 week with a thickness of 0.5mm.
2. The treatment plan can be carried out under the supervision of a physician.
3. Please check the attached material on how to use D.A.D Software.
4. The thickness of the aligner is recommended to be 0.5mm or more.

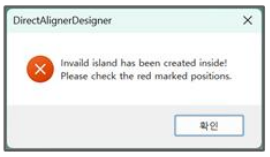
C. 3D Printer - / ing

1. Be sure to follow the manufacturer's user manual and precautions.
2. Check if the parameter value is suitable for the resin.
3. Keep the VAT clean before use.
4. Please start curing within 60 minutes after completion of 3D printing.
5. Do not print the aligners vertically or horizontally.
6. If the aligner does not print properly there is no case that the print does not work due to a problem with the Graphy resin.

Precautions for use

| ○ | × | |
|--|---|--|
|  <p>TIP! In the anterior gingival bar and labial surface area, the angle between the gentlest slope and the horizontal line at the top 20 to 30 degrees is the most ideal.</p> | <p>A. Occlusion plane</p>  | <p>The support is attached with the occlusal surface at a flat angle. Too many supports are created on the occlusal surface. And the support created on the cusp makes it difficult to maintain the original tooth's shape of the cusp. The support created in the groove is difficult to remove with a soft pad, and polishing reduces the transparency of the device and weakens the device, which can easily cause cracks or fractures.</p> |
| | <p>B. Aligner Trim Line Plane</p>  | <p>This is how the support is attached to the inner part of the device. In this case, Ireland cannot be recognized accurately, A support is attached to the inside of the aligner, and the attached support may cause damage to the device during removal and difficulty in removal. In addition, it may cause difficulty in wearing the device due to the residual support of the inner. There are cases where the appliance does not fit the teeth due to support marks that have not been completely removed from the inside.</p> |

#TIP!



If you click Make support in the DAD software, the Aligner Shell tilts with the angle value entered automatically. We recommend tilting the Aligner Shell between 20 and 40 degrees. Depending on the angle of the patient's anterior procline and the attachment status, the angle may need to be changed. (Angle change can be changed in Angle value) When proceeding to the specified angle value, if all islands are not included, a notice alarm as shown on the left is confirmed. Please proceed after confirming that the corresponding notice is not alarmed by increasing the angle.

Precautions for use

D. Post-processing (Centrifuging)

1. Use only the centrifuge specified by Graphy. (Tera Harz Spinner)
2. Keep the interior and remaining resin container clean. (Residual resin removal is recommended at least once a week)
3. Without removing the support of the aligner, fix it to the hook with the inside of the aligner facing outward.
4. Please pay attention to RPM and time recommended by the Graphy.
5. After removing the resin, check the inside of the aligner, and if there is residual resin on the inside, remove it with a cotton swab. (If there is an attachment attached, you need to carefully check that part for a good fit.)
6. Do not use any cleaning method that is not recommended by Graphy (water, IPA, etc.).
7. After removing the resin, the support can be easily removed by hand, so please do not use cutters or nippers.(Nipper is used only when the supporter's pillar sticks to the tooth surface)
8. After removing the support, check the support residue before proceeding with curing. (If the remaining resin is cured on the inside, there may be discomfort in the device fitting and difficulty in curing)
9. When removing the support, do not touch the inside of the aligner with your hands.
10. If the voltage of the Spinner is not correct, it may operate slowly and cause problems.(Ex> When using a 220V Spinner at a voltage of 110V in the US and Japan)

Precautions for use

E. Curing

1. Please periodically clean the rotatory plate of the curing machine using IPA. After starting curing, check whether the rotary plate rotates before use. (If the reflector gets too dirty, you can purchase it from the graphy and the graphy dealer. About \$30 each)
2. When placing the aligner on the rotating reflector, start curing by keeping the shape of the aligner the same as the printed shape. (During curing, the aligner may stick to the plate due to the resin flowing from the aligner and deform its shape.)
3. Sufficient cooling time is required after curing the Direct Aligner. Otherwise, curing quality may be affected.
4. Immediately after curing, the rotatory plate is very hot, so use gloves to take it out.
5. There is a vent hole on the side and rear of the equipment to discharge internal heat, so be careful not to splash or inflow water such as a faucet.
6. The air compressor connected to the nitrogen generator should basically be in a dry state with any kind of moisture removed. The air filter can filter some of it out, but if the mist that is not filtered out by the air filter continuously flows into the nitrogen generator, it may affect the nitrogen purity. If the nitrogen purity is low, the pre-nitrogen injection time gets longer when starting nitrogen curing, and if the programmed concentration is not reached, an error pop-up window appears. Please store and use the curing machine in a dry place away from water.

Precautions for use

E. Curing

7. Periodically check the air filter attached to the rear of the nitrogen generator, and if there is a lot of moisture, remove the moisture periodically. If you press the small pin at the bottom of the air filter while wrapping it with a tissue, the moisture is discharged. This moisture discharge function is available only when the compressor is operating. (If moisture builds up in the air filter attached to the back of the curing machine, the quality of curing may be degraded. Be sure to install an air dryer between the curing unit and the air compressor. Market price about 150\$)

8. If the curing machine is turned on and not used for a long period of time, the LCD continues to output the same text, which may cause afterimages due to LCD burn-in. It is recommended to turn off the device if it is not in use for a long period of time.

9. The air compressor must use a pressure of 8 bar or more and have a discharge volume of 100 L/min or more. An air tank of 20L or more is recommended.

10. When using 2 or more curing machines, keep the machines at least 30cm apart.

11. When curing aligners with a thickness of 0.5 to 0.7mm or more, cure it for 20 minutes first and then cool it completely, and then cure for an additional 10 minutes or more for a thickness of 0.8 to 1.0 mm or more.

Precautions for use

F. Post-processing

1. After the Aligner that has been cured is sufficiently cooled at room temperature (after about 10 to 15 minutes), do polishing.
2. After polishing, use low speed rotation to proceed.
3. When polishing, work after wearing transparent goggles and a mask to prevent foreign substances from entering the user's eyes and respiratory tract.
4. Wash the Aligner after polishing with running water after wearing nitrile gloves. (This is because some people are allergic to latex gloves.)

G. Washing and drying

1. Before preparing for the 1st and 2nd washing, check the inside of the washing device for foreign substances, clean it thoroughly, and then proceed.
2. Perform a 2-minute cleaning in the ultrasonic device (1 minute if the water temperature is 80 degrees).
3. Proceed with a 1-minute wash in boiling water.
4. The temperature of the dryer always complies with the 35~45°C standard, and drying for more than 5 minutes is not recommended.
5. After drying the aligner, use a product that can block UV, such as silver foil, when packaging.