



TECHNICAL DATA SHEET PORTUX 3D MODEL ORTHO DPFTPT-139

1. PRODUCT OVERVIEW

Low viscosity, photopolymerizable 3D printing resin manufactured with dental grade raw materials, suitable for printing of dental models used in thermoforming processes. The Portux 3D Model Ortho resin is ideal to the elaboration of orthodontic clear aligners, used in invisible orthodontic treatments. Models can be printed with optimal definition at shorter printing times than a regular resin model. Thanks to a release additive included in its formula, the printed models with Portux 3D Model Ortho have a bright surface finish, which allows an easy release of thermoformed aligners without the need of relieving mechanical retentions prior to the thermoforming process. This resin is compatible with open-source DLP printers with 385 and 405 nm wavelength, and monochromatic open-source LCD printers with 405 nm light.

2. COMPOSITION

- Acrylic monomers.
- Polymerization initiators.
- Pigments.
- Additives.

3. PRODUCT PROPERTIES

- Flexural strength: > 60 MPa.
- Flexural modulus: > 1800 MPa.
- Low pigments separation level.
- Smooth bright printed surfaces to facilitate the remove of the thermoforming plates.

4. USES AND APLICATIONS

Dental models for thermoforming processes.

5. QUALITY ASSURANCE OF THE PRODUCT

New Stetic S.A has strict standardized internal controls in the manufacture of its products, in order to guarantee an optimum quality for the final customer.

Additionally, it has qualified personnel in the Quality Control area, where compliance with the final specifications of the product is verified, in accordance with the established regulations, with the help of physical resources such as calibrated equipment.

Creation Date		Elaborated by:		Revised by:	
2022-10-24		Research Analyst		Technical Coordinator of Medical Devices	
Class	Page	Approved by:		Update:	Version
E	1 of 2	Technical Director of Medical Devices		2024-10-22	03

REFERENCE DOCUMENT: DPDDPR-019

UPDATE: 2024-01-29

VERSION: 03



TECHNICAL DATA SHEET PORTUX 3D MODEL ORTHO DPFTPT-139

6. INSTRUCTIONS FOR USE

- Always mix the resin bottle for at least one hour on a mechanical vibration device or roller before opening the product for the first time. This ensures an optimal performance in the printer and color reproducibility.
- Shake the resin vigorously before pouring it into the printer.
- Print the resin following your printer's instructions for handling and use.
- Post-processing of printed models:
 - For cleaning the printed models isopropyl or ethyl alcohol is recommended, preferably using ultrasonic equipment or shaker. Rinse the models in an alcohol bath for 5 minutes and then, rinse them again in clean alcohol for the same time. It is recommended to use compressed air between cleanings to remove the excess resin within the cavities or critical areas of the model.
 - Remove the models from the alcohol and dry them with compressed air or in an oven at 40 °C for 30 minutes. **IMPORTANT:** Avoid curing damp or wet models, as this affects the precision and final definition of the printed parts.
 - It is recommended to cure the parts under UV light for at least 15 minutes to achieve the maximum strength.
- After printing it is recommended to return the resin to its original container.

7. COMMERCIAL PRESENTATIONS

The PORTUX 3D MODEL ORTHO resin comes in presentations of 250 g, 500 g and 1 kg.

8. STORAGE AND PRESERVATION CONDITIONS

Keep the product in its original container, preserving it from the follow situations:

- Direct sunlight or LED exposure.
- Away from high heat and wet sources.
- Dust or another type of pollutants.

Creation Date		Elaborated by:		Revised by:	
2022-10-24		Research Analyst		Technical Coordinator of Medical Devices	
Class	Page	Approved by:		Update:	Version
E	2 of 2	Technical Director of Medical Devices		2024-10-22	03

REFERENCE DOCUMENT: DPDDPR-019

UPDATE: 2024-01-29

VERSION: 03