SIMPLEX

NEW 3D filament printer
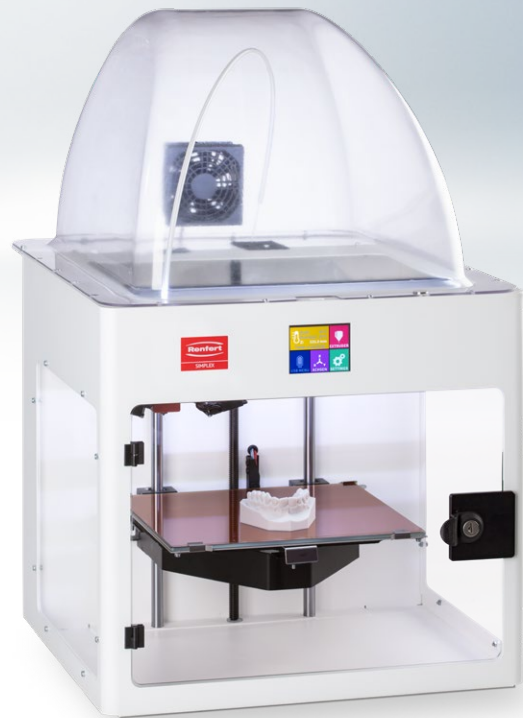
NEW SIMPLEX

3D filament printer

SIMPLEX is a dental 3D-filament-printer. With the slicer software, which was specially developed for the dental sector, you can print models, which do not pose a risk to health, easily and reliably via the "Plug and Print" concept. The SIMPLEX 3D-filament-printer-system covers the entire range of orthodontic model fabrication. With its high dimensional accuracy, the SIMPLEX 3D-filament-printer ensures consistent, reproducible results. The 3D models produced do not require any post-processing.

compact

smart control

Advantages

- Easy to use thanks to "Plug and Print" concept.

- Level resolution up to 50 μm grants precise results.

- Pleasant working with low noise level ≤ 49 dB.

Details

- SIMPLEX consisting of: SIMPLEX 3D filament printer, SIMPLEX sliceware, SIMPLEX print, SIMPLEX study model, Renfert CONNECT app.

- Process reliability thanks to filament monitoring system and automated troubleshooting.

- Intuitive touchscreen navigation.

- Safety thanks to closed building chamber, lockable door, and removable cover.

- Heatable print bed: optimal adhesion and simple cleaning.

- Simple handling thanks to removable print platform.

- Optimal communication between PC and printer via Wi-Fi (currently EU and USA).

- Working with filaments that are harmless to health.

SIMPLEX sliceware is already installed with presets for orthodontic use

Technical data

Use	Fused Filament Fabrication (FFF)
Permissible mains voltage	90 – 264 V
Permissible mains frequency	50 / 60 Hz
Temperature range (Nozzle)	180 – 260 °C // 356 – 500 °F
Temperature range (Print bed)	50 – 110 °C // 122 – 230 °F
Layer resolution	≥50 μm
Number of extruders	Single
Type of extruder	All-Metal Hotend
Printing speed	50 – 200 mm/s
Position precision	4 x 4 x 2 μm
Weight (empty)	~16,3 kg // ~35.94 lbs
Dimensions (W x H x D) (Build volume)	250 x 200 x 200 mm // 10 x 8 x 8"
Dimensions (W x H x D) (Housing)	406 x 350 x 385 mm // 16 x 14 x 15.2"
Dimensions (W x H x D) (Device, exterior size)	415 x 500 x 635 mm // 16.3 x 19.7 x 25"
Diameter (Nozzle)	0,4 mm // 0.0016"
Diameter (Filament)	1,75 mm // 0.0689"

Ordering information

SIMPLEX with Wifi	No. 17350000
SIMPLEX	No. 17351000

NEW SIMPLEX Filaments
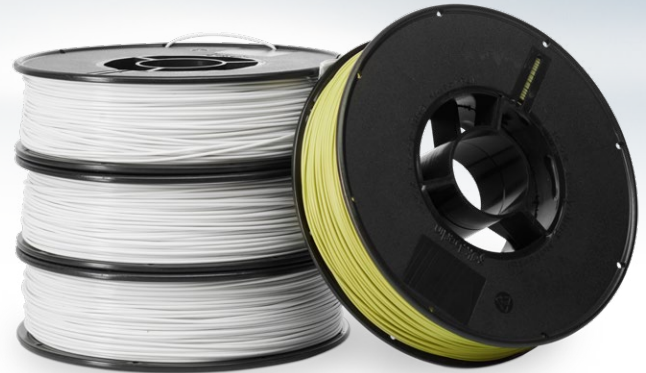
Filament for orthodontic model fabrication

The high-quality special filaments are suitable for the specific requirements of the dental industry: they have excellent mechanical and physical properties and do not pose a risk to health. The high consistency and dimensional accuracy of the filaments enable detailed print quality. You receive a defined filament selection designed for the respective area of application.

Advantages

- Work at a high level with high quality materials.
- Work reliably with a selection of filaments matched to the indication area and printer.
- Time-saving and health-friendly fabrication of 3D models — no post-processing, no cleaning, no curing.

Details

- 100% free from irritants — no harmful vapors during printing process.
- Biofilament is recyclable and industrially compostable.
- Excellent mechanical and physical printing properties such as layer and print bed adhesion.
- High-quality, process-stable printing and detailed print result thanks to uniform diameter (1.75 mm) and roundness along the entire length of the filament.
- No post-processing with chemicals and curing unit necessary.
- Sustainable, environmentally friendly, and cost-effective printing.
- Colorfast, UV-resistant.
- Made in Germany.

Designed for complete orthodontic model fabrication

The model can be used as usual without the need for any post-processing

Accessories

3D Filament printing

SIMPLEX study model	The bio filament SIMPLEX study model offers high detail reproduction and sharpness for precise planning and diagnostic models. Promotes pleasant working, thanks to having no irritating components. Does not produce unpleasant vapors during the printing process, is recyclable and industrially compostable. Printing temperature: 190–230°C For SIMPLEX	Bio filament Ø 1.75 mm, 1 x 800 g, white	No. 17350100
SIMPLEX working model	The biofilament SIMPLEX working model is designed for the digital production of working models and offers high detail reproduction. Promotes pleasant working, thanks to having no irritating components. Does not produce unpleasant vapors during the printing process, is recyclable and industrially compostable. Printing temperature: 190–230°C For SIMPLEX	Bio filament Ø 1.75 mm, 1 x 800 g, viridian green	No. 17350200
SIMPLEX aligner model	The special filament SIMPLEX aligner model is tailored to the special requirements of aligner production and the thermoforming technique*. Promotes pleasant working, thanks to having no irritating components. Generates no unpleasant vapors during the printing process. No post-processing, no annealing required. Printing temperature: 235–255°C *excluded: Zendura Clear Aligner & Retainer Material For SIMPLEX	Heat-resistant special filament Ø 1.75 mm, 1 x 800 g, white	No. 17350300
SIMPLEX multi-use model	The bio filament SIMPLEX multi-use model provides a natural surface effect with its high hard-gypsum content. Offers high detail reproduction. Promotes pleasant working, thanks to having no irritating components. Does not produce unpleasant vapors during the printing process, is recyclable and industrially compostable. It can be optimally worked with rotary instruments or a scalpel. Printing temperature: 205–220°C For SIMPLEX	Plaster filament Ø 1.75 mm, 1 x 800 g, wplaster white	No. 17350600