Case Study

Otoplastics

W2P

Otoplastics

Application: Hearing Aids / Hearing Protection

Otoplastics are individually adapted ear fitting pieces, which serve on the one hand as a hearing aids and on the other hand as hearing protection. Individual earmolds ensure maximum wearing comfort and guarantee ideal cushioning.

Requirements

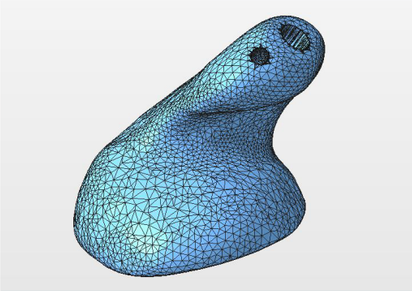
Material: Medical Device Class IIa
Production Method: quick and easy production

Recommended Resins

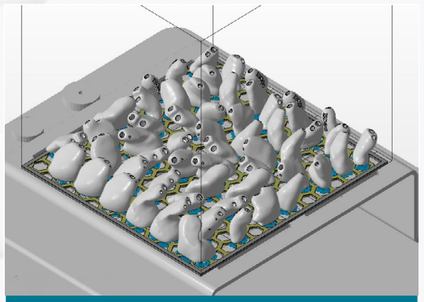
Dreve FotoTec / Detax Luxaprint / Medicalprint

Digital Workflow

Preparation: Prior to the printing process, the otoplastics have to be prepared for printing. A 3D printing software helps to place the model on the building platform. Also, support structures have to be added.



3D Model



Support Structures

Printing Process: In the next step, the prepared files are being processed by the printer. In this specific case the otoplastics were 3D printed under the following conditions:

3D printer:	SolFlex 650
Layer thickness:	100 µm
Printing time:	1:50 min.
Resin:	FotoTec DLP A beige
Number of printed objects:	57
Resin use:	31 g
Total resin use (incl. support structures):	43 g
Total resin costs:	€ 14.15

Depending on the size of the 3D printer's building platform, a different number of otoplastics can be 3D printed.

Number of otoplastics that fit on the building platform:

SolFlex 650:	57
SolFlex 363:	35
SolFlex 350:	28
SolFlex 170:	20
SolFlex 150:	12

Post-Processing: The 3D printed otoplastics are post-cured in a UV light box, cleaned and the support structures have to be removed.

Finished Object