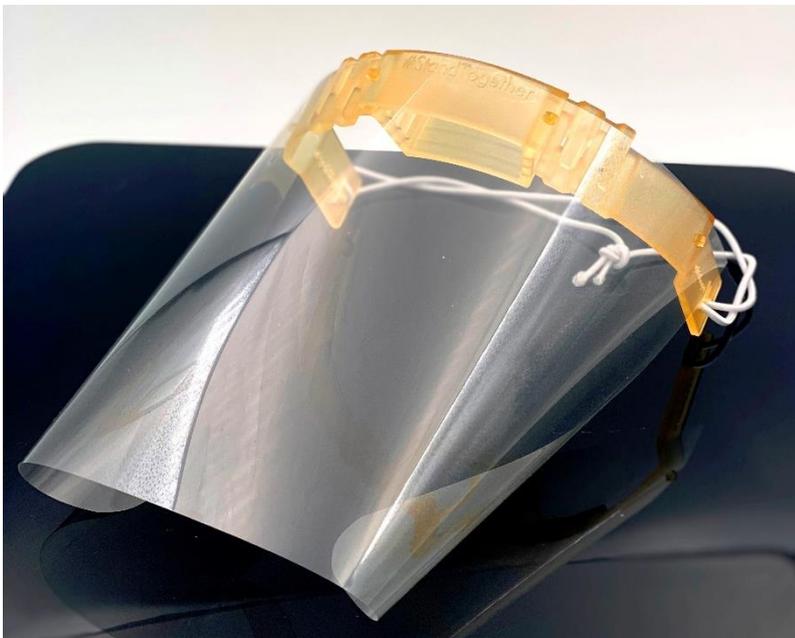


## FACE SHIELD

A face shield is protecting workers in the health care sector from coughing or sneezing of patients and is therefore preventing a droplet infection of the Corona virus.

Covid-19 is a global humanitarian challenge. It is spreading, causing many local emergency situations in hospitals. Rapid Shape provides information for its dental & hearing aid 3d printing community to #standtogether



## MATERIAL REQUIRED:

### 3D PRINTER:

#### D30 series

- Rapid Shape D30+, Dental Wings D30+, DMG 3Demax, Shera SHERAprint 30+, Straumann P30+
- Rapid Shape D30 II, Dental Wings D30, Shera SHERAprint 30, Straumann P30

#### D40 series

- Rapid Shape D40 II, Dental Wings D40, Shera SHERAprint 40, Straumann P40

### CAM SOFTWARE:

- Autodesk Netfabb

### 3D PRINTING MATERIAL:

**We strongly recommend to use biocompatible Class 1A material, especially one of the following ones:**

#### Surgical Guide Material

- Rapid Shape RS Surgical Guide
- SHERAprint Surgical Guide
- DeltaMed 3 Delta Guide S
- Straumann P pro Guide

#### Tray Material

- Rapid Shape RS Tray
- SHERAprint Tray
- DeltaMed 3 Delta Tray
- Straumann P Pro tray

#### Splint Material

- DMG LuxaPrint Ortho Plus

### ADDITIONAL MATERIAL:

#### Protective Sheet

- DIN A4 clear, 300 microns, shining PVC  
e.g.: <https://www.mercateo.com/folie>

- Elastic Strap

- Superglue

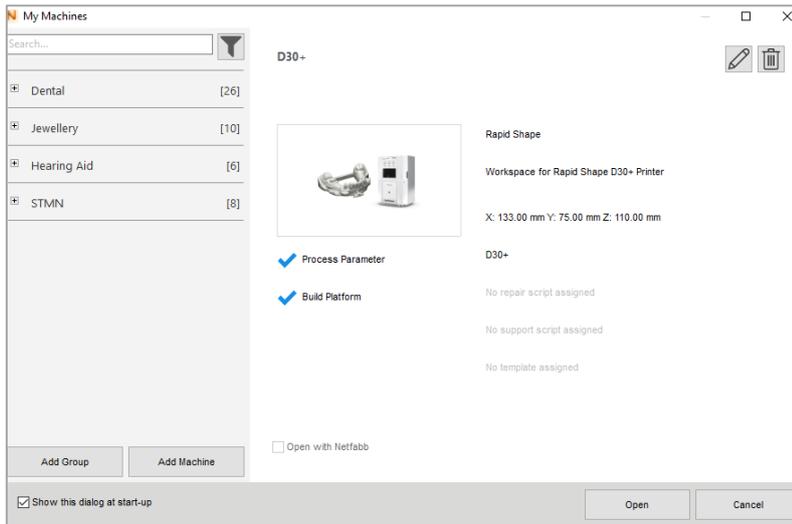
- Hole Punch

## How to prepare the FACE SHIELD print job:

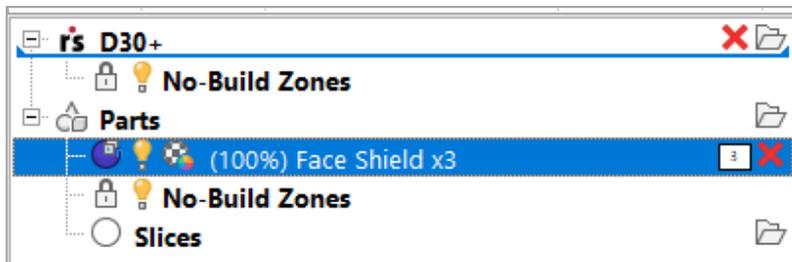
Step 1: **Choose** one of the prepared Netfabb fabbprojects, either one or three sets of the FACE SHIELDS:

 Face Shield - 1 Set.fabbproject

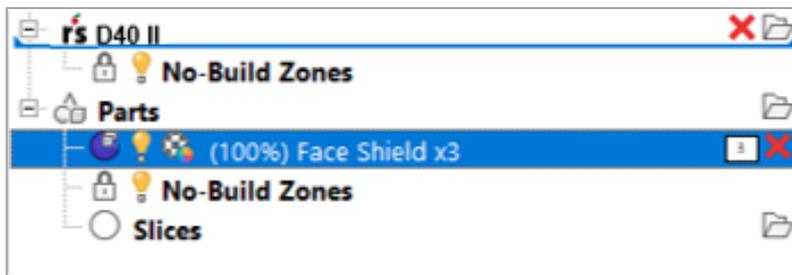
 Face Shield - 3 Sets.fabbproject



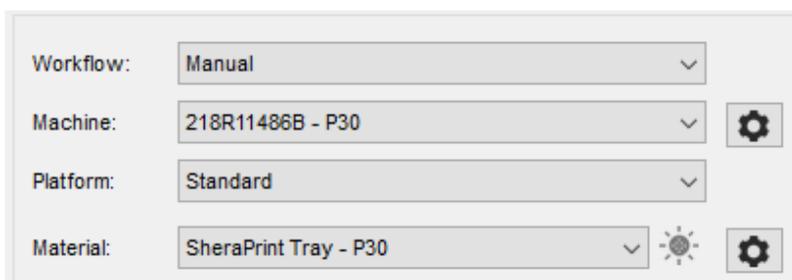
Step 2: **Load** job file and open target machine.



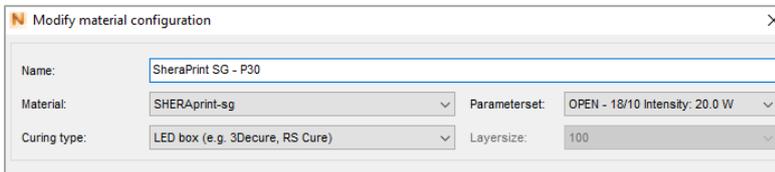
Step 2: Drag & drop target file into **Machine Environment** (e.g. D30+).



Please note for D40 II, SHERAprint40 and P40 this file can be pulled into the Machine Environment twice to receive six FACE SHIELDS.



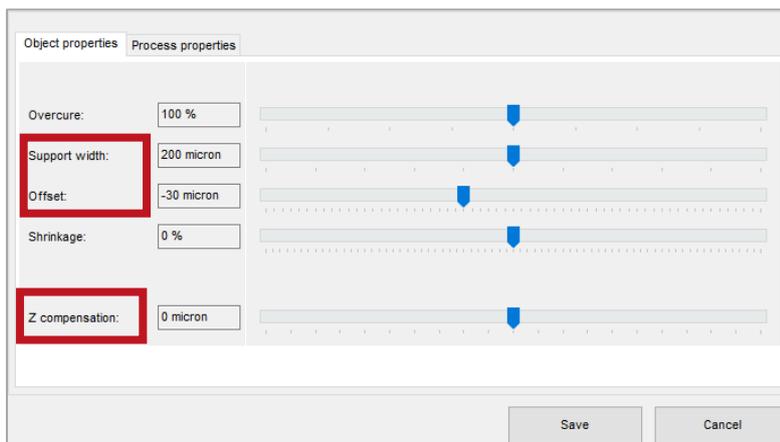
Step 3: Open the material library.



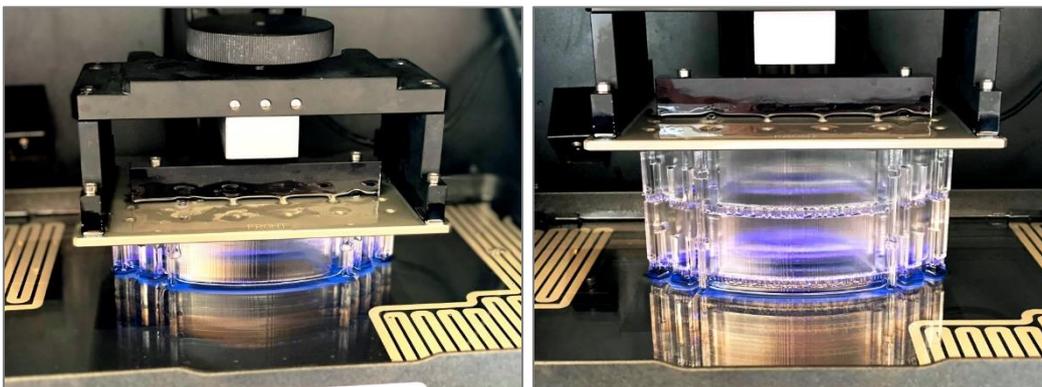
Step 4: Select the chosen material in the material library.

Step 5: **IMPORTANT: Modify the material configurations for the recommended resins please as follows:**

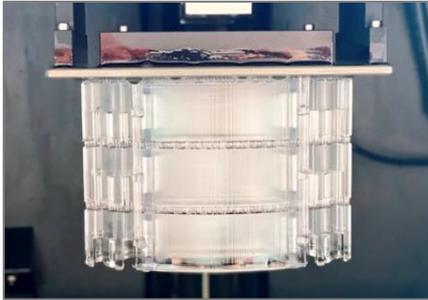
- For all Materials:
  - Z compensation: -30 microns
- Surgical Guide and Splint Material:
  - Support Width to 200 - 300 microns
  - Offset to -30 microns
- Tray Material:
  - Support Width to 350 microns
  - Offset to -30 microns



Step 5: Create the job file and start printing.



## POST-PROCESSING



Step 1: **Detach** the shields from the building plate with a spatula and with a hammer as needed.

Step 2: **Separate** each part from another by using the spatula to crush the supports carefully.



Step 3: Gently pull off the supports and get rid of the bigger parts e.g. with isopropanol as a primary cleaning if needed. It is important to get rid of all these parts to protect the RS wash



## How to wash the FACE SHIELD:

With the RS wash or an Ultrasonic Device

Step 1: Cleaning program/time depends on the material. Please follow the **resin manufacturer's instructions** for use.



## How to post cure the FACE SHIELD:

With the RS cure or e.g. Dentamid PCU LED N2

Step 1: **Check** the FACE SHIELDS for residual resin and defects especially in the connecting area.

Step 2: Dry the FACE SHIELD with **compressed air**. Please follow the resin manufacturer's instructions for usage.



## How to assemble the FACE SHIELD:



Step 1: **Plug** the three parts together until it clicks.

**Important:** Use superglue to firmly bond the three elements together. Make sure that you glue multiple positions of every connector.

Step 2: Tie the **elastic strap** through the holes in the back of the frame and fasten it with knots on both sides.

Step 3: **Punch** 4 holes in the protective film with a hole punch. **Plug** the protective sheet in by pressing it on the marked plugs in the picture.

