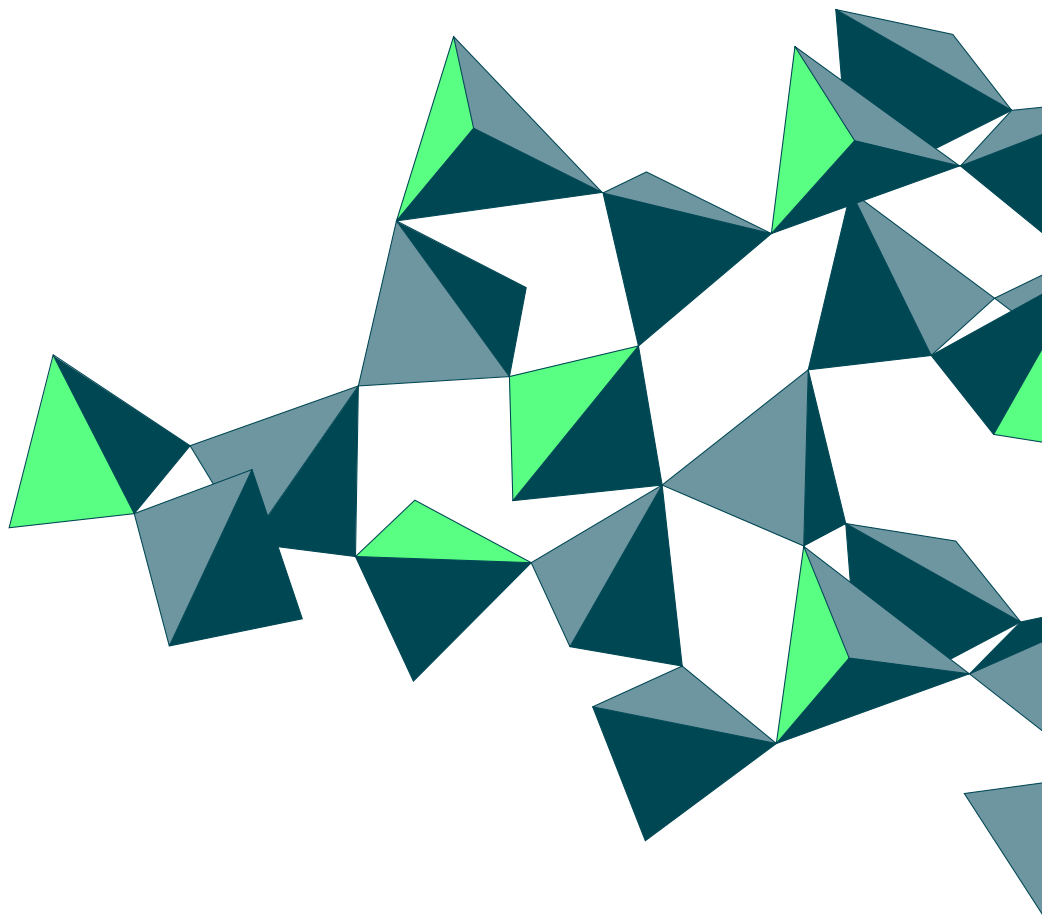


# Design Guidelines





## Introduction

ACEO® is offering 3D printing with silicones. Therefore especially developed ACEO® Silicones and ACEO® Support Material are manufactured.

The printing strategy as well as the orientation on the build platform is decided by ACEO® in order to achieve an optimal printing quality.

If you wish to print more than one part of a design, we recommend to get them printed in one print job to ensure the same quality for all parts.

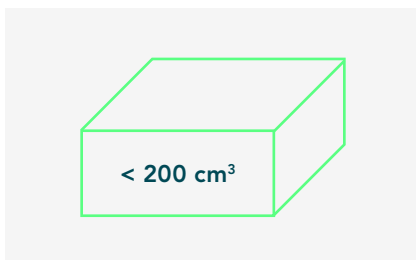
## Quality of the Product

3D printing with silicones is an additive manufacturing process in which parts are build layer by layer. Thus results a layered structure typical for this kind of process.

Complex structures, inner cavities, lattices etc are filled up with ACEO® Support Material. The same applies to overhangs and bridges. After finishing the print job the ACEO® Support Material can be removed easily. Therefore an outlet needs to be designed in order to wash it out.

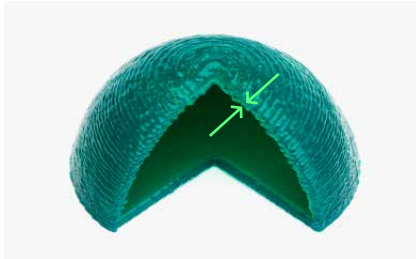
## Designing a Model

The following is provided for **general information** only. It does not constitute a legally binding agreement and does not describe the quality of the ordered product.



### Bounding Box

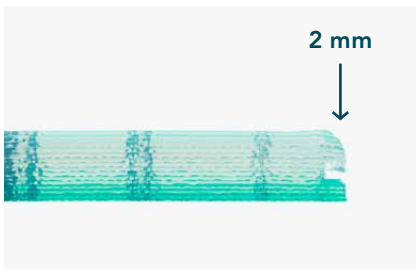
In the set-up of our ACEO® Print Fab, we accept digital models up to 200 cm<sup>3</sup> bounding box. For bigger part designs please connect with [info@aceo3d.com](mailto:info@aceo3d.com).



## Wall Thickness

In order to achieve the best possible quality of the 3D printed part we recommend to design a wall thickness of at least:

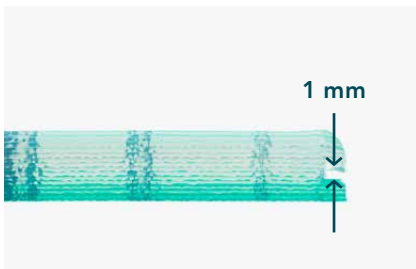
1 mm



## Edge Radius

In order to achieve the best possible quality of the 3D printed part we recommend to design edge radii, of at least:

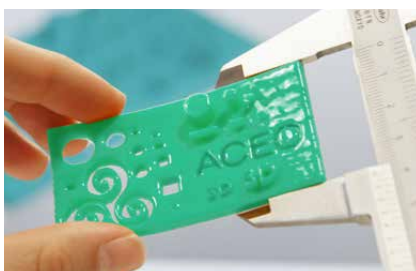
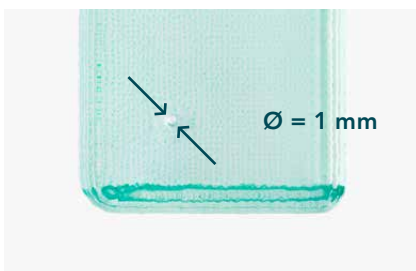
2 mm



## Spacings/Holes

In order to achieve the best possible quality of the 3D printed part we recommend to design spacings, of at least:

1 mm

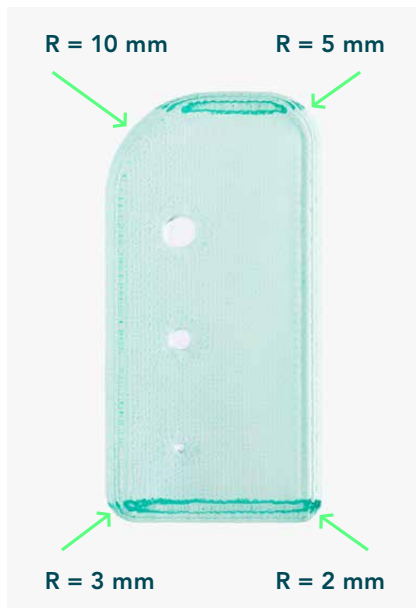


## Tolerances

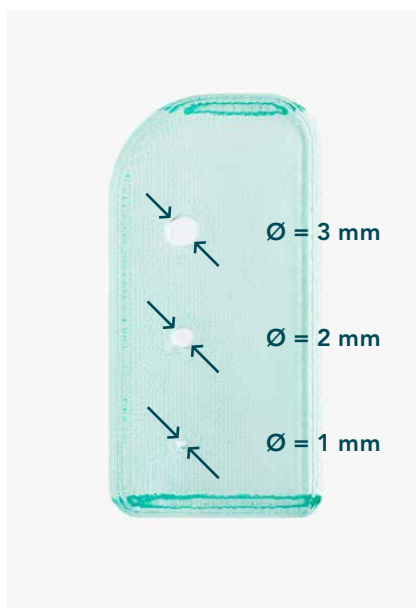
The tolerances of our 3D printing process are oriented in the length dimensions towards DIN ISO 2768-1 v

## The Look of Printed Parts

Below you will find **general information of how parts look like** which were printed with ACEO® Technology



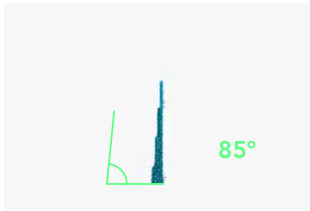
Edge Radius



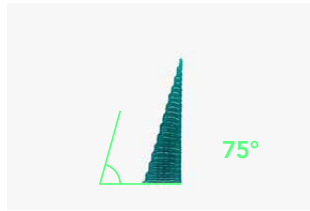
Spacings/Holes

## The Look of Printed Parts

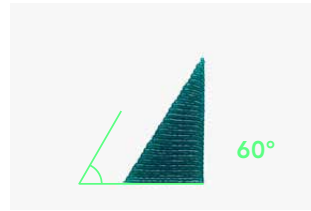
Below you will find **general information of how parts look like** which were printed with ACEO® Technology



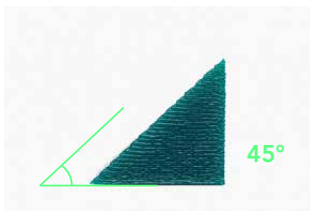
**A** 85 angle degree



**B** 75 angle degree



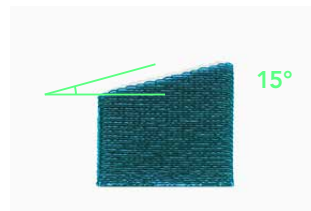
**C** 60 angle degree



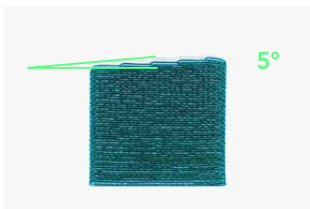
**D** 45 angle degree



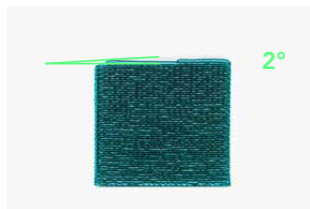
**E** 30 angle degree



**F** 15 angle degree



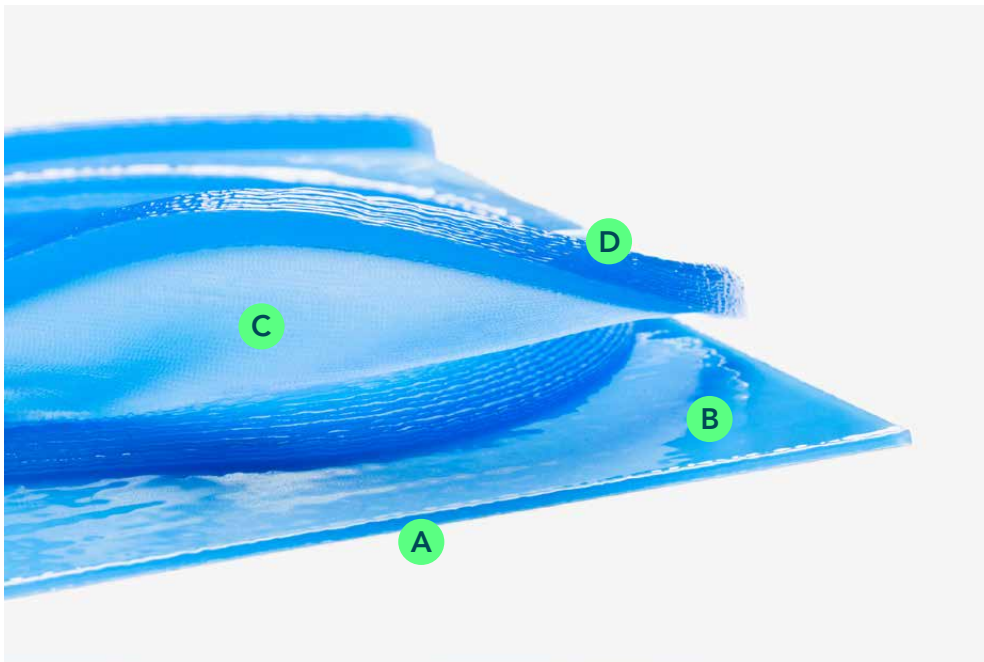
**G** 5 angle degree



**H** 2 angle degree

## The Look of Printed Parts

Below you will find **general information of how parts look like** which were printed with ACEO® Technology



### Surfaces

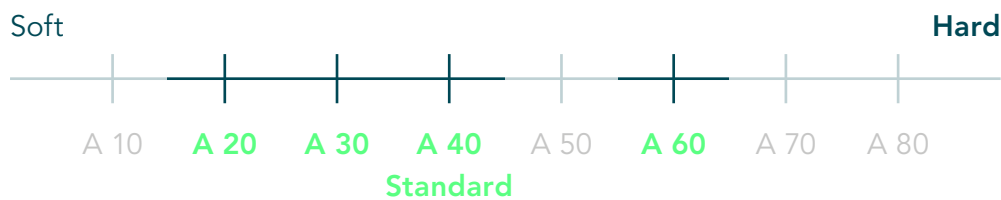
- A** Smooth bottom surface on build platform
- B** Smooth top surface from last printed layer
- C** Surface from contact to support material
- D** Side walls with layer structure, layers  $\approx 0,4$  mm

## Available Materials

For more details, especially on mechanical and technical topics, please refer to Material Data Sheet, which can be ordered at [info@aceo3d.com](mailto:info@aceo3d.com)

### Shore A Hardness

The following types of different Shore A hardness will be part of our standard range. We offer **Shore A 20** (all colors, but not in translucent), **A 30**, **A 40** and **A 60**. More durometers will be launched step by step.



### Available Colours

The colors listed below will be part of our standard range. We offer translucent, skin, gentian blue and graphite black, pure white, flame red and silver gray. More colors will be added step by step.



## Good to Know About Files

### We support the following formats

AutoCAD (DWG, DWF)

Inventor

CATIA V4, V5, V6

Creo Parametric

IFC

IGES

JT

OBJ

Parasolid XT

PRC

Pro/Engineer

Rhino

SAT

Siemens PLM Software's NX

Solid Edge

SolidWorks

STEP

Stereo Lithography (STL)

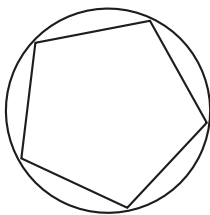
Universal 3D (U3D)

VDA-FS

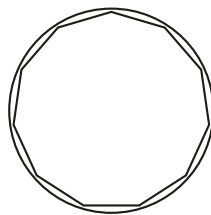
VRML

**.stl** is the format which is needed for the ACEO® printing technology. Therefore we ask you to send us this format if possible. All other formats will be automatically converted by us.

**Tip:** When you prepare your .stl file please be reminded of selecting a high triangulation level. This is especially valid for curves, rounds, corners, etc.



Low triangulation level

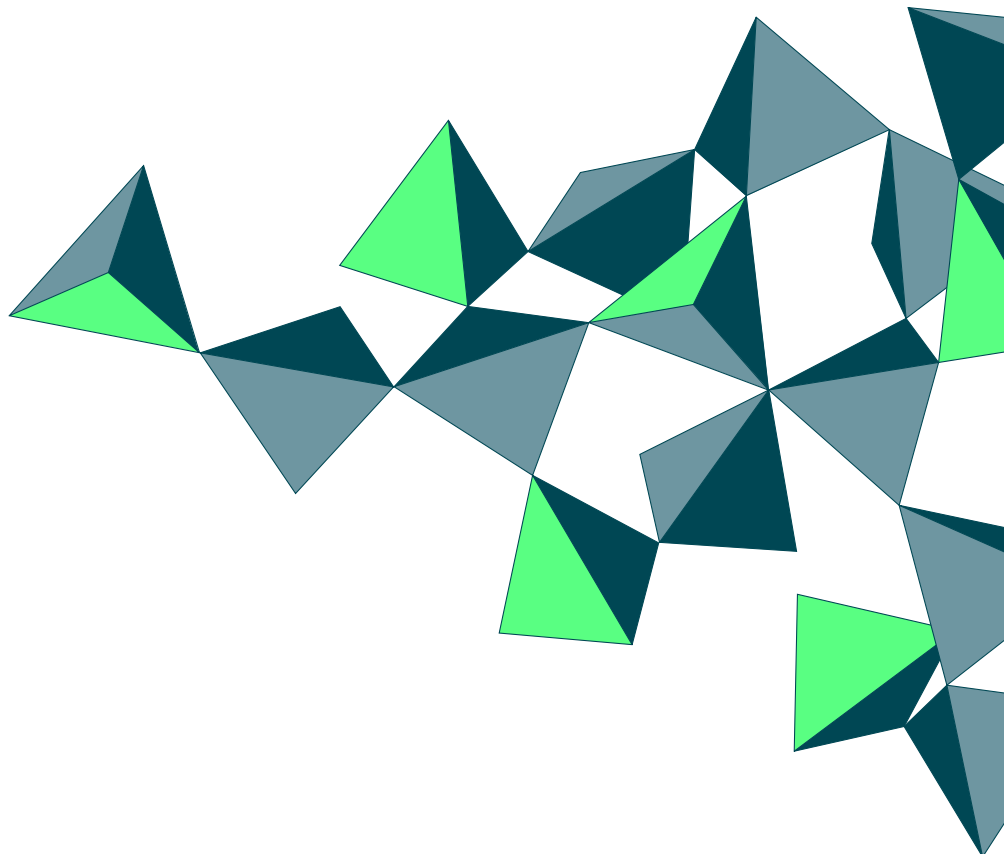


High triangulation level





**IMAGINE ...**  
**what could be your novel product design?**



**Contact ACEO® Team**

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