

SnowWhite Design Guide

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Draw objects to be sintered

The drawing of objects suitable for the sintering process is similar to the drawing of objects for the injection, the main differences are:

- support for overhang threshold of the objects are not necessary
- the slightest dimension of the wall is 1,00 mm (0,40 inch)
- the right dimension of the holes depends from the thickness of the block in which they are included, using wall with the smaller dimension of 3,00 mm (0,120 inch) you can achieve better results.
- we suggest to use a closing radius of 0,4 mm (0,015 inch) for the internal angles, in order to minimize the effort on the walls and allow a correct cleaning of them

Technical specifications

Minimal wall thickness	0,8 – 1,0 mm (it depends from the powder)
Minimal detail	0,3 mm
Dimensional accuracy	± 0,3% with lower limit ± 0,3 mm)
Minimal distance between details (Clearance*)	0,6 mm

Wall thickness

The minimal wall thickness is 1,0 mm (0,040 inch) and you shouldn't realize big parts of the objects with a wall thickness lower than 2,0 mm (0,080 inch).

Clearance

It is defined as the distance between the door and its trestle when the door is closed.

If you draw a rod of 5 mm and a hole with a diameter of 5 mm, the rod won't be inserted in the hole. There will be a space, called clearance to insert the rod in the hole.

Hole and inserts

The hole dimension depends from the wall thickness in which they are realized, more the wall is thick more the hole must be large in order to be possible. For example, the minimal possible diameter for a wall of 0,3 mm is about 0,8 mm which raises to 1,3 mm for walls of 3,0 mm.

The inserts are reduced about 0,2 mm during the printing process

Embossed and Engraved Details

In this case we recommend letters with a minimum thickness of 1 mm, a depth of 1.5 mm and an overall height of at least 4.5 mm.

Embossed text or surface details should be thick enough that they will be correctly built and not break during post-treatment. We recommend letters that have a line thickness of at least 0.8 mm, an overall height of at least 3 mm, and a depth of at least 0.8 mm.

Details

There is usually an error of about 0,2 mm in every structure built.