

How to get a realistic prototype with a luxury metal rendering from a 3D printing?

Markets

Luxury - Packaging - Cosmetic

Objective

Get a prototype with an ultra-realistic, aesthetic and functional look, to validate a design, to touch the final object and, even, to make a photo shoot for the needs of your marketing team.

How? By covering your plastic part with a colorful metallic finish, without real metal.

Background

To meet the expectations of its customers, 3D Solutions provides a global offer from 3D scanning to post-processing and finishing. 3D Solutions use DLP printing technology with a functional, solid and rigid resin that guarantees a beautiful surface condition, ideal for the luxury and packaging industry.

Client

3D Solutions

Specialist in 3D
digital chain

Manufacture - Solutions

Step 1

3D technology

To manufacture a part quickly, at a lower cost, as simply as possible and with a good surface condition, 3D Solutions chose SLA technology and, more particularly, the **DLP process**. DLP is faster than the laser process since it allows the entire printing surface to harden at once.



Step 2

3D printer selection : CUTE 300 DLP

This printer of the brand **Union Tech** has a major asset: its compatibility with a wide variety of materials including the **BASF** qualified resins!

- Tray size 250 x 140 x 240mm
- Print speed 40mm/h
- Layer thickness 0,05-0,1mm
- 65µm pixel size.



Step 3

What finish for a luxury look?

To get a realistic look, transforming this part into a ready-to-use object, we opt for the premium finish called Look Like Chromium®.

Look Like Chromium® is an innovative finishing process that gives a high-quality metallic look to your plastic parts without weighing them down.

This aesthetic treatment is carried out in three automated steps, in our **Metalfog** and **Smoothit** machines.



Step 4

Look Like Chromium®

Initially, the part is produced with a layer of translucent varnish, then the hanging layer is deposited. Then follows the thin metallic layer, to which is added the colored or translucent organic finish for a shining result.

This coating is certified contact skin jewelry.



Result

In 6 hours, you get a realistic prototype with a colorful metal rendering, without using real metal.

For 8 parts:

- 3D printing: 4 hours
- Look Like Chromium® finish: 2 hours.

Technical data

Material : BASF RG35 Black

Manufacture : 3D print, DLP

Process used : Look Like Chromium® finishing

Advantages

Metal effect, luxury rendering, mass customization, fast manufacturing, eco-efficient process, financial and time saving.

CONCLUSION

To carry out this project, 3D Solutions and Metalizz have combined their expertise to obtain ultra-realistic models to allow their customers to speed up their validation process and more responsive.

The combination of plastic 3D printing process and the Look Like Chromium® finish ensures in less than 1 day, a functional and realistic prototype meets the expectations of luxury industry players.