

# SCP srl presentation



**SCP s.r.l. a Socio Unico**  
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SCP Prototyping was born in 2010 in the heart of the Motor Valley and is now one of the most important companies in the automotive world.



The company is certified ISO 9001 and it is equipped with a cutting-edge research centre that is able to create prototypes for any field of work with rapidity and precision.

### Fields of reference:

- Automotive
- Motor Sport
- Mechanics
- Design
- Healthcare
- Aerospace

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# Technologies/material in use:



## ❑ SLS (Selective Laser Sintering)

- *BF 2.0: material formulated by SCP composed by a Nylon base with glass fiber;*
- *HS: material formulated by SCP composed by a Nylon base with carbon fiber;*
- *TPU: Thermoplastic polyurethane (rubber-like material)*

## ❑ SLA (Stereolithography)

- *ClearVue*

## ❑ DMLS (Direct Metal Laser Sintering)

- *Stainless steel;*
- *Aluminium;*
- *Inconel 625;*
- *Titanium TiAl<sub>6</sub>V<sub>4</sub>.*

## ❑ METALPLUS (Metallic coating)

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## METALPLUS (Metallic coating)



SCP Rapid Prototyping has introduced in its plant the innovative Metal Plus metal coating system, which allows the coating of a polymer component produced in rapid prototyping with a layer of structural copper/nickel.

This process considerably improves the mechanical and aesthetic properties of the component.

- ❑ The thickness of the coating can reach up to 0.5 mm and can vary on request.
- ❑ This process also allows the metal coating of components with complex shapes (regardless of the process of production) and it guarantees a considerable improvement of the mechanical and aesthetic properties of the component.
- ❑ Metal Plus also provides shielding and conductivity to the polymer component as it behaves like a metal as a result of the process.



# METALPLUS on BF2.0 (created in SLS): mechanical properties before and after METALPLUS



METALPLUS MECHANICAL PROPERTIES ON BF2.0 (SLS)

PROPERTIES	U.	TEST METHOD	WITHOUT METALPLUS	WITH METALPLUS 145 µm	WITH METALPLUS 300 µm
Tensile strength	Mpa	DIN EN ISO 527-1	51,70	61,82	80,36
Tensile modulus	Mpa	DIN EN ISO 527-1	3.850,00	9.101,40	11.831,82
Elongation at break	%	DIN EN ISO 527-1	6,70	2,46	1,85
Flexural strength	Mpa	DIN EN ISO 14125	77,81	115,79	160,53
Flexural modulus	Mpa	DIN EN ISO 14125	2.913,00	10.596,25	14.834,40

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# METALPLUS on resin (created in SLA): mechanical properties before and after METALPLUS



METALPLUS MECHANICAL PROPERTIES ON PROTOGEN (SLA)					
PROPERTIES	U.	TEST METHOD	WITHOUT METALPLUS	WITH METALPLUS 145 µm	WITH METALPLUS 300 µm
Tensile strength	Mpa	D638M	43,00	51,40	61,20
Tensile modulus	Mpa	D638M	2.250,00	5.310,00	7.434,00
Elongation at break	%	D638M	12,00	4,20	3,00
Flexural strength	Mpa	D790M	70,00	105,00	147,14
Flexural modulus	Mpa	D790M	2.060,00	5.737,72	8.034,00

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*Thank you  
for your attention*

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