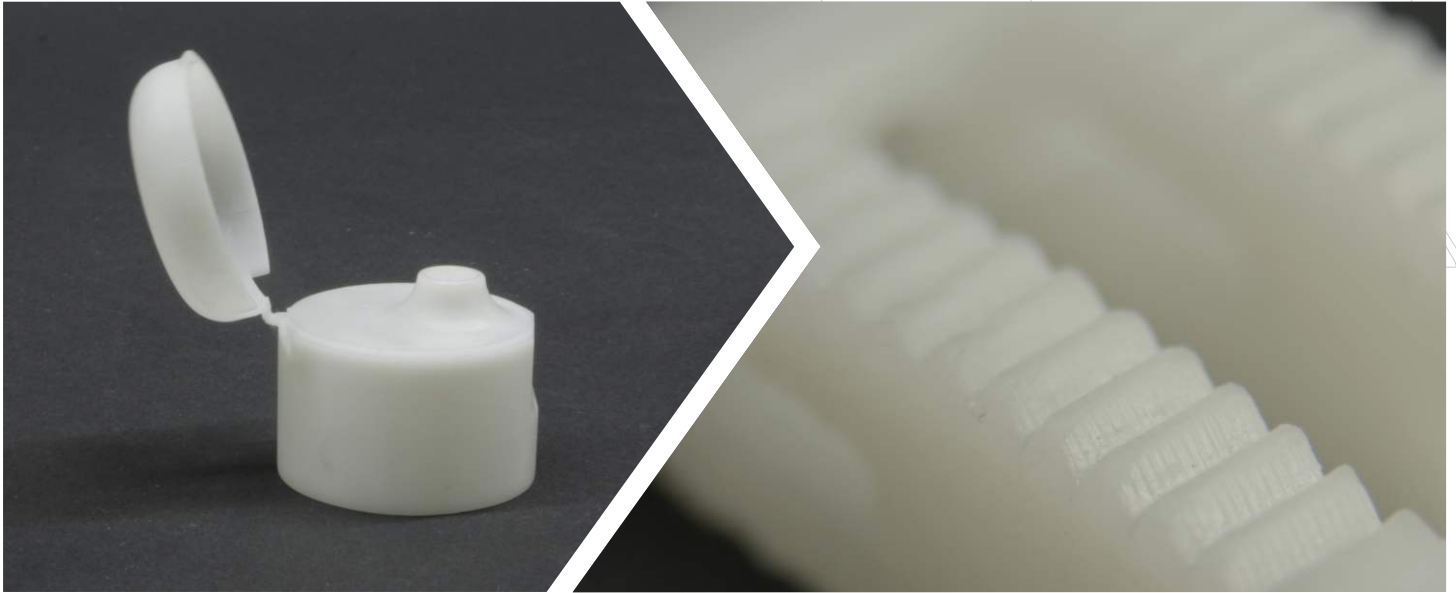


## PP-Equivalent Plastic



### Generic Data :

Technical Name	Somos EvoLVe 128
Process	Stereolithography (SLA)
Layer Thickness	100 $\mu\text{m}$
Accuracy	(+/-)150 $\mu\text{m}$
Maximum Build Size	250x250x250 mm

PP-Equivalent Plastic is a photo-cured resin. It simulates properties in the range of polypropylene to low-end ABS. The combination of mechanical properties and its visual similarity to an injection molded plastic has led many to opt for PP-Equivalent Plastic as their choice of material.

PP-Equivalent Plastic is whitish in color. It is suitable for durable enclosures, snap-fit assemblies and replacement parts for CNC machined white polypropylene materials. Since parts are fabricated using Stereolithography (SLA) technology, there is support structure generation during fabrication. Despite support structures, PP-Equivalent Plastic comes with a smooth surface finish, and little burs (if any) left during the support structure removal can be polished to give the part a superior surface finish.

### Characteristics

- + Great feature resolution and dimensional accuracy
- + Smooth surface finish and flexibility
- Support structure generation
- Parts may turn orangey if exposed to moisture and humidity

### Applications

- ✓ Proof of concept prototypes
- ✓ Enclosures and live hinges
- ✓ Automotive styling parts
- ✓ Master patterns for Vacuum casting

Material Properties	Value	Unit	Standard Test Method
Density (Liquid)	1.12	g/cm <sup>3</sup>	-
Apperance	White	-	-
Viscosity	380	cps	@30°C
Mechanical Properties			
Tensile Modulus	2,964	MPa	ASTM D 638
Ultimate Tensile Strength	56.8	MPa	ASTM D 638
Elongation at Break	11	%	ASTM D 638
Flexural Modulus	2,654	MPa	ASTM D 2240
Izod Impact (notched)	38.9	J/m	ASTM D 256A
Shore Hardness	82	Scale D	ASTM D 2240
Water Absorption	0.4	%	ASTM D 570-98
Thermal Properties			
Coefficient of Thermal Expansion (CTE)			
C.T.E. (0-50 °C)	76.5	µm/m°C	ASTM E 831-05
C.T.E. (50-100 °C)	163	µm/m°C	
C.T.E. (100-150 °C)	174	µm/m°C	
Heat Deflection Temp. under load			
@1.8 MPa	49.6	°C	ASTM D 648
@0.45 MPa	52.3	°C	