

CASTABLE

Photopolymer resins for 3D printing for technical use, suitable for making pieces with LCD and DLP printers. It maintains great dimensional stability, low shrinkage and low odor during printing.

Indicated for open-source printing equipment, in the range of 385 – 420nm.

CASTABLE is a resin that can be melted by heat without leaving residue or ash, this makes it suitable for making pieces using, wax process lost. The pieces made with this resin replicate with precision and sharpness complex geometries and completely smooth surfaces.

Recommended applications

- Making of molds for jewelry.
- Making of dentistry molds.
- Cast and micro-cast parts.



	TIPICAL VALUE	UNITS	TEST METHOD
PHYSICAL PROPERTIES			
Aparience	Blue liquid		
Density	1.18	g/cm ³	ISO 1183
Viscosity (25 °C)	700	cps	

MECHANICAL PROPERTIES (Values obtained after 15 minutes of UV curing)			
Tensile Strength	-	MPa	ASTM D638M
Tensile Modulus	-	MPa	ASTM D638M
Flexural Strenght	33	MPa	ASTM D790M
Flexural Modulus	1100	MPa	ASTM D2240
Elongation at break	-	%	ASTM D638M
IZOD Impacta (notched, 23°C)	-	J/m	ASTM D256A
Hardness	77	Shore D	ASTM D2240

PRINTING PROPERTIES ⁽¹⁾	LCD	LCD mono	UNITS
Layer height	0.05	0.05	mm
Base Layer	5	3	number
Exposure time base layer	80	70	seconds
Exposure time	11	3.5	seconds

⁽¹⁾ General printing parameters for a layer height of 25 µm, each printing equipment may require modifications in the settings, for more information about the configuration in a specific model, write to us at the following email: info@smartmaterials3d.com

SIZE	NET WEIGHT	BRUT WEIGHT	COLOR	PACKAGING
M	500 g	550g	Blue	Caron box, de Cartón, Black PE bottle, zip lock bag.

USE RECOMENDATIONS

SHAKE PRODUCT BEFORE USING



The composition of the resin can contain suspended particles, over time these can end up precipitating at the bottom of the container, so it is advisable to shake the container before use so that the product mixes again and is completely homogeneous.

RECOMMENDED LAYER HEIGHT



This resin is suitable for working with a layer height according to the indicated range. Layer height is directly related to print resolution so a lower layer height is recommended to achieve a higher quality finish.

RECOMMENDED PRINTING EQUIPMENT



Smart Materials 3D Resin Standard Black has been validated for 3D printing technologies using LCD and DLP.

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It allows to remove by heat, melting the resin without leaving residues or ashes, which allows it to be used in lost wax mold manufacturing processes.

DISCLAIMER: The information provided in the data sheets is intended to be just a reference. It should not be used as design or quality control values. Actual values may differ significantly depending on the printing conditions. The final performance of the printed components does not only depend on the materials, also the design and printing conditions are important.

Smart Materials assumes no responsibility for any damage, injury or loss produced by the use of its filaments in any particular application