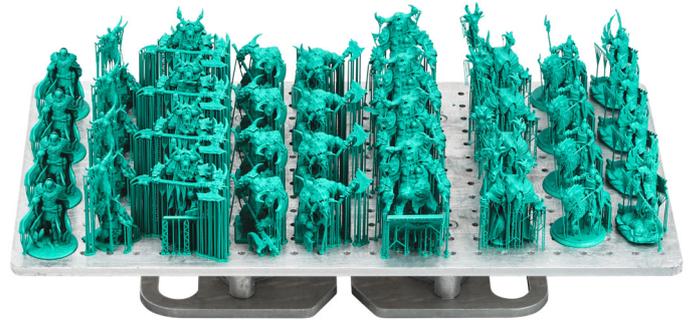




Daylight Magna Concept



SPECS

KEY FEATURES

Magna Concept Green has been designed for producing high definition modelling parts, solely for LC Magna. The printed parts display high tensile strength, durability, high accuracy and detail perfect for modern figurine and modelling market. With high print speeds this resin, also, allows testing designs and modifying to be streamlined. The smooth surface finish is easy to work with can be covered in various primer paints.

PRINTING (PROCESSING) INSTRUCTIONS

Follow the procedures laid out in the LC Magna user manual. Shake resin prior to use, recommended 2 minutes. We would recommend that build heights do not exceed 150mm. Avoid direct sunlight while pouring. The resin is reusable after pouring through the supplied filter and funnel to remove any solids. Always keep door closed when not in use to avoid curing or contamination.

Post Processing guidelines:

- Do not leave the platform in the ambient light before washing and post exposing, this could lead to liquid resin curing prematurely.
- Wash in the wash 99L for approximately 15 minutes (as a maximum)
- Rinse with hot water to remove residue cleaner and resin
- Dry with air compressor to remove any remaining water from the part
- Post cure in a pre-heated Cure L for 2 hours at 60 degrees, for larger parts it can take up to 4 hours to post cure.

Support guidelines:

- Support profile for small parts – 0.6mm tips / 1.5mm pole diameter / 2mm widening factor
- Support profile for large parts – 0.8mm tips / 2mm pole diameter / 2mm widening factor

Recommended resin temperature (pre-printing)

- 30°C

DATA

Viscosity (At 25°C Brookfield spindle 3)	690cPs
Hardness ASTM D2240 (After post exposure)	92 Shore D
Tensile strength ASTM D638 (After post exposure, 1h UV)	61 MPa
Elongation at break ASTM D638 (After post exposure, 1h UV)	3.7 %
Young's modulus ASTM D638 (After post exposure, 1h UV)	2810 MPa
Impact strength notched Izod ASTM D256 (After post exposure)	1.97 kJ/m2
Flexural strength ASTM D792 (After post exposure)	87 MPa
Flexural modulus ASTM D792 (After post exposure)	2060 MPa
Heat deflection temperature	85°C
Water absorption (24 h)	<0.2 wt%
Storage	10<t>50°C
Density	1.1 g/cm3

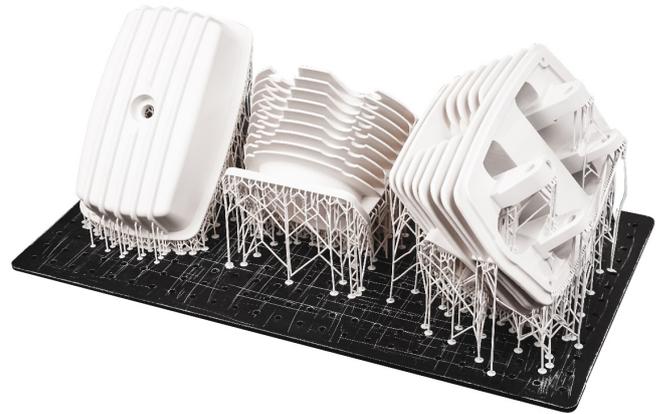
AVAILABLE COLOURS

Green

Available in 5 kg bottles.



Daylight Magna High Tensile



SPECS

KEY FEATURES

Photocentric's Daylight Magna High Tensile formulation has been created for producing objects exhibiting exceptional tensile strength and elongation comparable to acrylic and polyimide. These rigid parts cannot be bent or compressed easily, while having minimal shrinkage and high accuracy.

With excellent imaging in the LC Magna, this resin has fast exposure times and a wide exposure latitude. Allowing the parts to also hold the finest details possible from LC Magna. The finished material is tough, durable and long lasting provided it is stored in dry conditions away from strong UV light.

PRINTING (PROCESSING) INSTRUCTIONS

Follow the procedures laid out in the LC Magna user manual. Shake resin prior to use, recommended 2 minutes. Avoid direct sunlight while pouring. The resin is reusable after pouring through the supplied filter and funnel to remove any solids. Always keep door closed when not in use to avoid curing or contamination.

Post Processing guidelines:

- Do not leave the platform in the ambient light before washing and post exposing, this could lead to liquid resin curing prematurely.
- Wash in the wash 99L for approximately 15 minutes (as a maximum)
- Rinse with hot water to remove residue cleaner and resin
- Dry with air compressor to remove any remaining water from the part
- Post cure in a pre-heated Cure L for 2 hours at 60 degrees, for larger parts it can take up to 4 hours to post cure.

Support guidelines:

- Support profile for small parts – 0.6mm tips / 1.5mm pole diameter / 2mm widening factor
- Support profile for large parts – 0.8mm tips / 2mm pole diameter / 2mm widening factor

Recommended resin temperature (pre-printing)

- 30°C

DATA

Viscosity (At 25°C Brookfield spindle 3)	980 cPs
Hardness ASTM D2240 (After post exposure)	92 Shore D
Tensile strength ASTM D638 (After post exposure Postcured 120 mins UV and heat 60°C water)	81 MPa
Impact strength notched Izod ASTM D256 (After post exposure)	3.2 kJ/m2
Flexural strength ASTM D792 (After post exposure)	95 MPa
Young's modulus ASTM D638 (After post exposure Postcured 120 mins UV and heat 60°C water)	3060 MPa
Flexural modulus ASTM D792 (After post exposure)	2200 MPa
Elongation at break ASTM D638 (Postcured 120 mins UV and heat 60°C water)	4.8%
Heat deflection temperature	95°C
Storage	10<t>50°C
Density	1.16 g/cm3

AVAILABLE COLOURS

White.

Available in 5kg bottles.



Daylight Pro Flexible

SPECS

FEATURES

Pro Flexible is specially formulated to produce accurate, translucent parts which exhibit great flexibility and elongation. Upon posturing, objects can be compressed and deflected enough to bend and return to the original shape. They will exhibit low tensile shear properties with high elongation where medium force is required to bend and reshape. Pro Flexible allows for both large scale printing of flexible parts within a Liquid Crystal Pro along and detailed printed parts.

Key Benefits include; great elongation, easy to print and process as well as being flexible and tough.

IDEAL APPLICATIONS:

- Functional stretchable parts
- Consumer products
- Custom cushioning
- Flexible medical models

PROCESSING INSTRUCTIONS

Follow the procedures laid out in your 3D Liquid Crystal's user manual.

For best post-processing results, clean using a Photocentric Wash 99L with Photocentric Resin Cleaner for maximum 15 minutes. Rinse thoroughly with warm to hot water. Place in Cure L for 20 minutes in water, for large parts rotate platform in Cure L after 10 minutes for even exposure.



DATA

Viscosity (At 25°C Brookfield spindle 3)	200 cPs
Hardness (After post exposure)	85 Shore A
Tensile strength (ASTM D638 After Post Exposure)	4.9 MPa
Tensile strength ASTM D638 (Before post exposure)	1.5 MPa
Tensile Modulus ASTM D638 (After post exposure)	-
Elongation at break	60%
Storage	10<t>50°C
Density	1.18 g/cm3

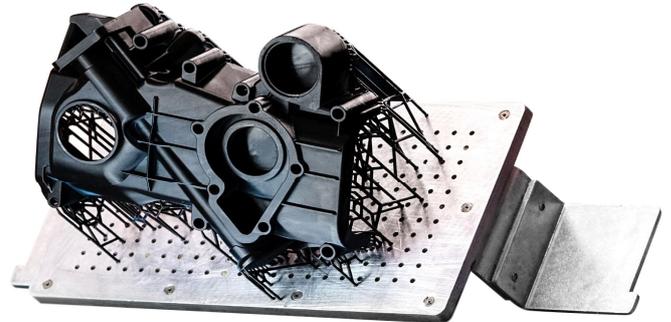
AVAILABLE COLOURS

Amber

Available in 5kg bottles with non-drip cap.



Daylight Pro Hard



SPECS

FEATURES

Photocentric's Pro Hard daylight polymers are ideal for making large scale objects where you want a very hard object with no compressive ability under high force. It exhibits only minimal shrinkage. Objects will not bend or deflect when under duress. They exhibit very high tensile shear properties and almost no elongation. Daylight Hard provides excellent imaging in Liquid Crystal printers. You will experience the benefits of fast exposure times and a wide exposure latitude, allowing you to hold the finest details your machine can provide. The solid material is tough, durable and long lasting provided it is stored in dry conditions away from UV light. Key benefits include large hard and durable parts with a smooth surface finish. These parts are easy to use and finish.

PROCESSING INSTRUCTIONS

Follow the procedures laid out in your 3D Liquid Crystal's user manual.

For best post-processing results, clean using a Photocentric Wash 99L with Photocentric Resin Cleaner for maximum 15 minutes. Rinse thoroughly with warm to hot water. Place in Cure L for 20 minutes in water, for large parts rotate platform in Cure L after 10 minutes for even exposure.

DATA

Viscosity (At 25°C Brookfield spindle 3)	440 cPs
Hardness ASTM D2240 (After post exposure)	86 Shore D
Tensile strength ASTM D638 (After post exposure, 1h UV)	46-53 MPa
Tensile modulus ASTM D638 (After post exposure, 1h UV)	2200-2500 MPa
Elongation at break ASTM D638 (After post exposure, 1h UV)	4-6%
Storage	10<t>50°C
Density	1.18 g/cm ³

AVAILABLE COLOURS

Black

Available in 5kg bottles.



Daylight Pro High Tensile



SPECS

FEATURES

Photocentric's range of High Tensile daylight photopolymers have been created for producing hard objects with a high tensile strength. Objects cannot be bent or compressed easily. The printed parts will exhibit exceptional tensile strength and elongation comparable to that of acrylic and polyimide. The rigid parts produced show minimal shrinkage possible along with great accuracy. The printed parts will have fit together perfectly, allowing for large functional objects to be created. Daylight High Tensile provides excellent imaging in your desktop Liquid Crystal printer. You will experience the benefits of fast exposure times and a wide exposure latitude, allowing you to hold the finest details your machine can provide. The solid material is strong, durable, and long lasting provided it is stored in dry conditions away from strong UV light.

PROCESSING INSTRUCTIONS

Follow the procedures laid out in your 3D Liquid Crystal user manual. Polymer should be poured into the tray away from direct sunlight. Polymer can be reused but should be poured through a filter to remove solid lumps. Keep hood on at all times. Liquid polymer is soluble in water and soap. Object should be post cured under UV in water to remove any surface tack, followed by UV light at 80 °C for minimum of 1 hour to obtain the maximum tensile properties.

IDEAL APPLICATIONS

- Engineering parts
- Consumer Goods
- Thermoforming models

DATA

Viscosity (At 25°C Brookfield spindle 3)	980 cPs
Hardness (After post exposure)	92 Shore D
Tensile strength ASTM D638 (After post exposure Postcured 120 mins UV and heat 60°C water)	81 MPa
Young's modulus ASTM D638 (After post exposure Postcured 120 mins UV and heat 60°C water)	2200-2500 MPa
Elongation at break ASTM D638 (Postcured 120 mins UV and heat 60°C water)	4.8%
Storage	10<t>50°C

AVAILABLE COLOURS

White

Available in 1kg bottles.



Daylight PRO Tough

SPECS



FEATURES

Photocentric's range of Tough daylight photopolymers are ideal for making objects where you want flexibility and strength. Thick objects are stiff but can be made to bend and flex under strain and will return to their original shape. Pro Tough offers you the opportunity to 3D print large, functional parts on your LC Pro.

They exhibit moderate to high tensile shear properties and moderate to high elongation, objects can be bent with a medium-high force. Daylight Pro Tough provides excellent imaging in your LC Pro machine. You will experience the benefits of fast exposure times and a wide exposure latitude, allowing you to hold the finest details your machine can provide. The solid material is tough, durable and long lasting provided it is stored in dry conditions away from strong UV light.

PROCESSING INSTRUCTIONS

Follow the procedures laid out in your 3D Liquid Crystal user manual. Resin should be poured into the tray away from direct sunlight. Resin can also be reused but should be poured through a filter to remove solid lumps. Keep hood on at all times to avoid unwanted curing or contamination. Liquid polymer is soluble in water and soap. After making clean, objects' surface tack can be removed by leaving under water in UV for 10 minutes or longer. In addition to regular post-exposure, we also recommend storing objects in a 60°C oven overnight for optimal mechanical properties.

DATA

Viscosity (At 25°C Brookfield spindle 3)	600 cPs
Hardness (After post exposure)	80 Shore D
Tensile strength ASTM D638 (After post exposure)	35 MPa
Tensile strength ASTM D638 (Before post exposure)	10 MPa
Young's modulus ASTM D638 (After post exposure) Poscured 120 mins UV and heat 60°C water)	500 MPa
Flexural modulus ASTM D792 (After post exposure)	120 MPa
Elongation at break (ASTM D638 After Post Exposure)	50%
Storage	10<t>50°C
Density	1.10 g/cm ³

AVAILABLE COLOURS

Amber

Available in 5kg bottles.



UV Laser Castable



SPECS

FEATURES

Photocentric's range of Castable Laser UV photopolymers are ideal for making objects. This is a SLA resin designed for creating high definition castable objects. It is formulated to burn evenly at regularly increasing temperature stages to reduce gas pressure in the cast and provide almost no ash content. It will give minimal expansion on heating. You will experience the benefits of fast exposure times and a wide exposure latitude, allowing you to hold the finest details your machine can provide. The solid material is tough, durable and long lasting provided it is stored in dry conditions away from UV light.

PROCESSING INSTRUCTIONS

Follow the procedures laid out in your 3D Laser printer's user manual. Polymer should be poured into the tray away from direct sunlight. Polymer can be reused but should be poured through a filter to remove solid lumps. Keep hood on at all times. Liquid polymer is soluble in water and soap. After cleaning, objects surface tack can be removed by leaving under water in UV for 20 minutes. Any residual surface tack can be removed by wiping with IPA. Object should be completely dry before casting.

DATA

Viscosity (At 25°C Brookfield spindle 3)	230 cPs
Hardness (After post exposure)	75 Shore D
Tensile strength ASTM D638 (After post exposure)	10 MPa
Tensile strength ASTM D638 (Before post exposure)	6 MPa
Young's modulus ASTM D638 (After post exposure Postcured 120 mins UV and heat 60°C water)	2060 MPa
Flexural modulus ASTM D792 (After post exposure)	812 MPa
Elongation at break ASTM D638	3.4%
Ash content (Range 0-0.01%)	<0.01%
Storage	10<t>50°C
Density	1.19 g/cm ³

AVAILABLE COLOURS

Pink

Other colours available on request

Available in 1kg bottles with non-drip cap.



Daylight Magna Dental Model

SPECS



KEY FEATURES

Photocentric's Dental Model White formulation was purposefully created to produce detailed, high resolution dental models on the LC Magna. Developed in collaboration with Dental Technologists to ensure optimal colour, feel, and working characteristics; this resin is ideal for Orthodontic study and working models. A full printed arch shows minimal shrinkage with deviation tolerances of 50µm. Dental model white will provide excellent print performance on LC Magna, to create crisp and clean dental models suitable for producing aligners. Parts display extremely high tensile properties allowing their use in working or vacuum forming models.

PRINTING (PROCESSING) INSTRUCTIONS

Follow the procedures laid out in the LC Magna user manual. Shake resin prior to use, recommended 2 minutes. Avoid direct sunlight while pouring. The resin is reusable after pouring through the supplied filter and funnel to remove any solids. Always keep door closed when not in use to avoid curing or contamination.

Post Processing guidelines:

- Do not leave the platform in the ambient light before washing and post exposing, this could lead to liquid resin curing prematurely.
- Wash in the wash 99L for approximately 15 minutes (as a maximum)
- Rinse with hot water to remove residue cleaner and resin
- Dry with air compressor to remove any remaining water from the part
- To post cure your platform place a water bath (container) in the base of your Cure L.
- Post cure in a pre-heated Cure L for 15 minutes on the print arm at 60 degrees, after this time place the platform (teeth facing up) into the water bath to post-cure for the remaining 30 minutes. If parts remaining tacky

Support guidelines:

- Support profile for small parts – 0.6mm tips / 1.5mm pole diameter / 2mm widening factor
- Support profile for large parts – 0.8mm tips / 2mm pole diameter / 2mm widening factor

Recommended resin temperature (pre-printing)

- 30°C

DATA

Viscosity (At 25°C Brookfield spindle 3)	900 cPs
Hardness ASTM D2240 (After post exposure)	90 Shore D
Tensile strength ASTM D638 (After post exposure Postcured 120 mins UV and heat 60°C water)	63 MPa
Young's modulus ASTM D638 (After post exposure Postcured 120 mins UV and heat 60°C water)	3020 MPa
Elongation at break ASTM D638 (Postcured 120 mins UV and heat 60°C water)	4.3%
Impact strength notched Izod ASTM D256 (After post exposure)	3.2 kJ/m2
Flexural strength ASTM D792 (After post exposure)	95 MPa
Flexural modulus ASTM D792 (After post exposure)	2200 MPa
Heat deflection temperature	95°C
Water absorption (24 h)	< 0.2 wt%
Storage	10<t>50°C
Density	1.09 g/cm3

AVAILABLE COLOURS

White

Available in 5 kg bottles.