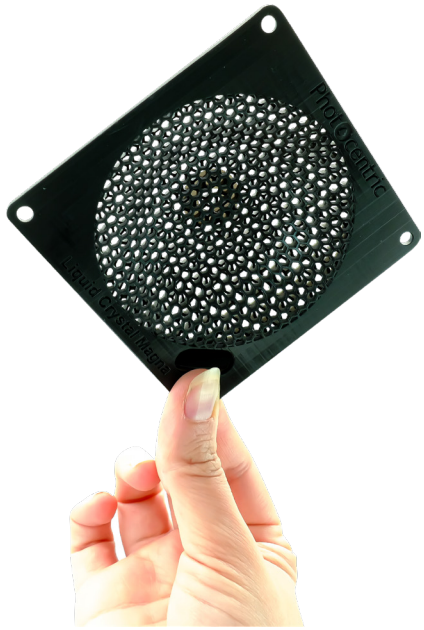
Technical Data

Photocentric

Daylight Magna Duramax



SPECS

KEY FEATURES

Photocentric's Daylight Magna Duramax photopolymer formulation has been created for 3D-printing functional parts that are very durable and long-lasting, with high impact strength. Thick objects are stiff but can be made to flex under strain, while returning to their original shape. Duramax has a smooth surface finish, requiring only minimal post processing, even for end-user parts.

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 may lead to liquid resin curing.
- Wash in the Wash 99L for a maximum of 15 minutes.
- Rinse with hot water to remove residue cleaner and resin
- Dry with air compressor to remove any remaining water.
- Post cure in a pre-heated Cure L for 2 hours at 60 degrees, for larger parts it can take up to 5 hours to post cure.

Support guidelines:

- Support profile for small parts – 0.4mm tips /1.5mm pole diameter / 2mm widening factor
- Support profile for large parts – 0.6mm tips / 2mm pole diameter / 2mm widening factor

Recommended resin temperature (pre-printing)

- 30°C

DATA

Viscosity (At 25°C Brookfield spindle 3)	395 cPs
Hardness ASTM D2240 (After post exposure)	70 Shore D
Tensile strength ASTM D638 (After post exposure)	50 MPa
Elongation at break ASTM D638 (After post exposure)	19%
Young´s modulus ASTM D638 (After post exposure)	1760 MPa
Impact strength notched Izod ASTM D256 (After post exposure)	5.4 kJ/m2
Flexural strength ASTM D790 (After post exposure)	28 MPa
Flexural modulus ASTM D790 (After post exposure)	760 MPa
Heat deflection temperature	65°C
Storage	10<t>50°C
Density	1.11 g/cm3

AVAILABLE COLOURS

Black.

Available in 5kg bottles.

UK Photocentric Ltd. Cambridge House, Oxney Rd, Peterborough, PE1 5YW email: *info@photocentric.co.uk*
USA Photocentric Inc. 2205 West Parkside Lane, Phoenix, 85027, AZ email: *info@photocentricusa.com*
www.photocentricgroup.com