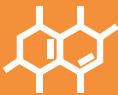




Technical Datasheet

Magna Duramax



Daylight Resin

Magna Duramax

Tensile Modulus (Low – High)



Impact Strength (Low – High)



Compatible Printers



Liquid Crystal
MAGNA

Colour



Black

Available in
5kg bottle



Bike Saddle

Photocentric's Magna Duramax formulation has been created for manufacturing functional parts that are durable and long lasting with high impact strength. Parts are stiff but can flex under strain, and quickly returning to their original form.

Optimised for

- | | |
|--|---|
| <input type="radio"/> Jigs and fixtures requiring minimal deflection | <input type="radio"/> Cover-plates and enclosures |
| <input type="radio"/> Fastenings, tools & couplings | <input type="radio"/> Suitable for end-use parts |

Unique features



Smooth surface finish



Tough, durable, and long lasting



Exhibits intricate details



High strength and stiffness



Magna Duramax Properties

Tensile Properties

Tensile Modulus *	1760 MPa	ASTM D638
Ultimate Tensile Strength *	50 MPa	ASTM D638
Elongation at break *	19%	ASTM D638

Flexural Properties

Flexural Modulus *	1600 MPa	ASTM D790
Flexural Strength *	70 MPa	ASTM D790

Impact Properties

Impact Strength Notched Izod *	51 J/m	ASTM D256
Impact Strength Notched Izod *	5.4 kJ/m ²	ISO 180

General Properties

Shore Hardness *	70 Shore D	ASTM D2240
Heat Deflection Temperature	60°C	ASTM D648
Water Absorption (Short Term)	1.4%	ASTM D570
Viscosity	395 cPs	At 25°C Brookfield spindle 3
Density	1.11 g/cm ³	
Storage	10<T>50°C	

* Mechanical properties stated based on fully cured material.



We are constantly reviewing and improving our range of high-performance materials. For the very latest information, please visit the Photocentric website



Pre-Print Instructions

1. To print with Photocentric Liquid Crystal Magna, choose “Magna Duramax (Black)” and the desired layer thickness when preparing your print file in Photocentric Studio.
2. Heat the resin to 30°C in the bottle.
3. Shake the resin bottle for 2 minutes before pouring into the resin vat.



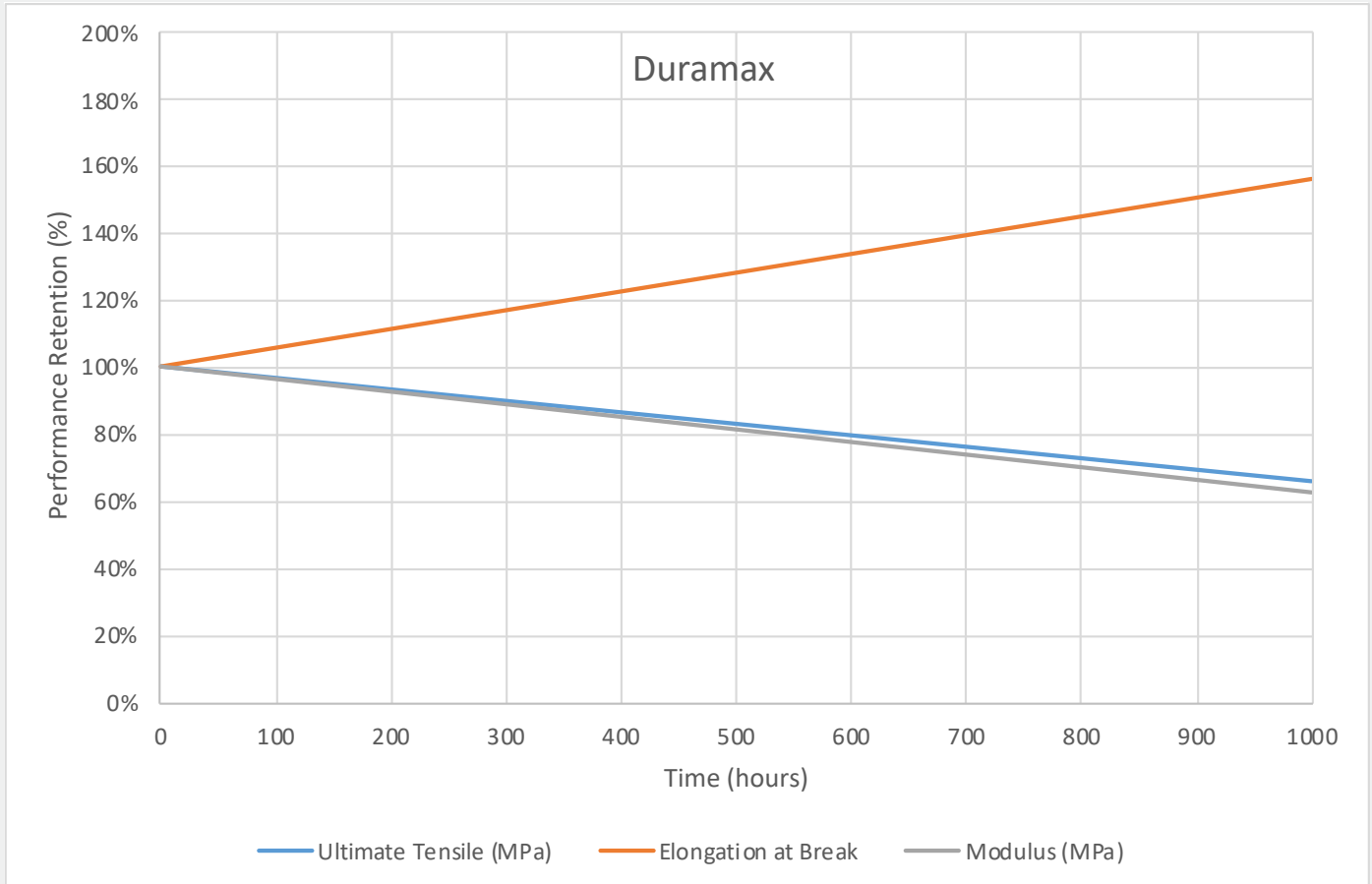
Post-Print Instructions

1. Parts can be washed in 15 minutes using Photocentric Resin Cleaner or alternatively, in 10 minutes using Photocentric Resin Cleaner 30.
2. Once washed, rinse with warm water for 2 minutes
3. Dry with compressed air to remove any remaining water. Or alternatively, leave to air-dry.
4. Place the platform into the Photocentric Cure L2 for a minimum of 4 hours at 60°C or until parts are fully cured. It can vary from 4-8 hours depending on dimensions of the parts.
5. Remove the platform from the Cure L2 and allow it cool to room temperature. Remove the printed parts with the supplied scraper or the soft spatula.



Magna Duramax Aging

Specific UV ageing testing was externally performed on Photocentric Magna Duramax (Black) Resin. Mechanical properties including Tensile Modulus, Tensile Strength at Break and Elongation at Break were evaluated after 1000 hours of exposure and compared against a zero-hour control.*



*All mechanical testing was carried out under ASTM D412 (Type C) for flexible/elastomeric materials, and ASTM D638 (Type IV) for rigid/durable materials.