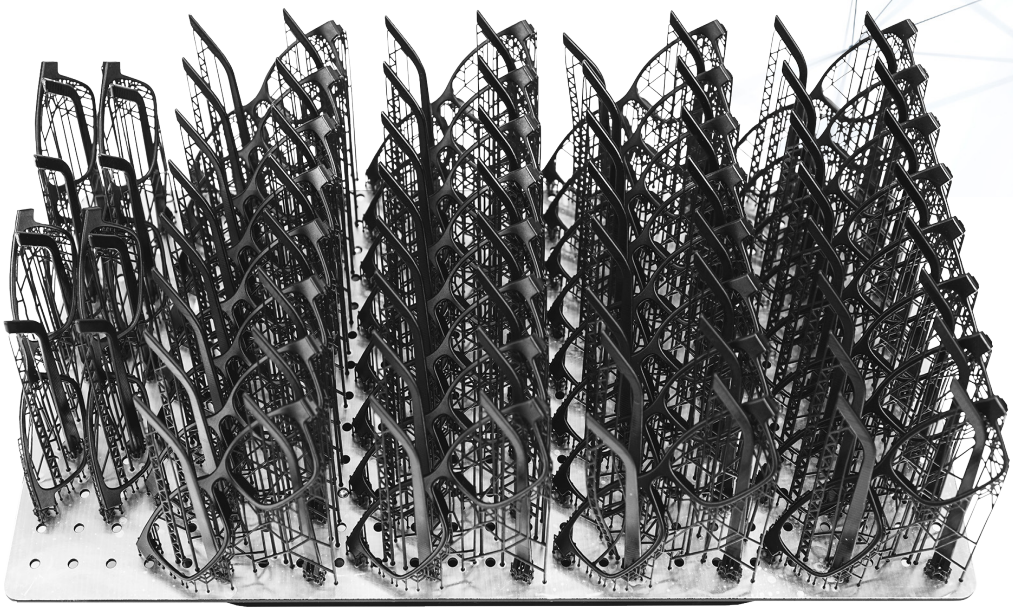
Technical Data

Photocentric

Daylight Magna Hard



36 pairs of glasses

Properties

Tensile Modulus

Low — High

Impact Strength

Low — High

Compatible Printers

Liquid Crystal
MAGNA

Colours

Black

Available in 5kg bottles

Introduction

Photocentric's Daylight Magna Hard formulation is ideal for making large objects displaying extreme hardness with no compression under high force, negligible plastic deformation due to yield strength before breaking and with minimal shrinkage. Parts also exhibit exceptionally high tensile properties with reasonable elongation.

Best Used for:

- Printing large functional parts
- Mass manufacture of custom end-use parts
- Prototyping

Unique Features:

- High accuracy
- Strong, tough and long-lasting

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

THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2020
THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2018
THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2016

Technical Data

Photocentric

Processing Instructions

- To print with Photocentric Liquid Crystal Magna, choose ‘Hard Black’ and the desired layer thickness when preparing your print file in Photocentric Studio.
- Heat the resin to 30°C in the bottle.
- Shake the resin bottle for 2 minutes before pouring into the resin vat.

Post Processing

- Parts can be washed in 15 minutes using Photocentric Resin Cleaner or alternatively, in 10 minutes using Photocentric Resin Cleaner 30.
- Once washed, rinse with warm water for 2 minutes
- Dry with compressed air to remove any remaining water. Or alternatively, leave to air-dry.
- Place the platform into the Photocentric Cure L2 for a minimum of 4 hours at 60°C or until parts are fully cured.
- Remove the platform from the Cure L2 and immediately submerge in cold water for thermal shocking. Parts can be removed from the platform with minimal effort.

Properties

Tensile Properties		
Tensile Modulus *	2600 MPa	ASTM D638
Ultimate Tensile Strength *	52 MPa	ASTM D638
Elongation at break *	10%	ASTM D638
Flexural Properties		
Flexural Modulus *	1550 MPa	ASTM D790
Flexural Strength *	65 MPa	ASTM D790
Impact Properties		
Impact Strength Notched Izod *	55 J/m	ASTM D256
General Properties		
Shore Hardness *	86 Shore D	ASTM D2240
Heat Deflection Temperature	85°C	ASTM D648
Viscosity	450 cPs	At 25°C Brookfield spindle 3
Density	1.1 g/cm3	
Storage	10<T>50°C	

*** Mechanical properties stated based on fully cured material.**

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

THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2020
THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2018
THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2016