



# Bilby 3D

## **MATERIAL DATA SAFETY SHEET**

Issued in Australia by Bilby 3D Pty Ltd.

The attached Material Data Safety Sheet has been prepared by the manufacturer outside Australia.

In accordance with Australia WHS regulations the following Australian contact details apply

### **Section 1: AUSTRALIAN COMPANY DETAILS**

In Australia the product is imported and distributed by:  
Bilby 3D Pty Ltd

Mailing Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Head Office Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Contact Phone: 1800 847 333

### **Section 2: AUSTRALIAN EMERGENCY CONTACT**

#### **Emergency Contact**

In the event of an emergency please contact:

Poisons Information Centre 24 hour Telephone Advice Line on 13 11 26

### **Section 3: AUSTRALIAN ISSUE DATA**

**Date of Issue** : 1 March 2020

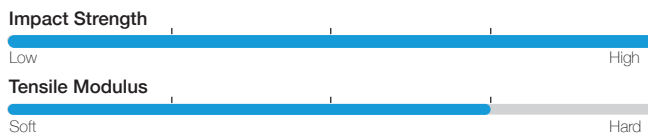


Durable DL110H



Smoky Quartz Translucent

## Properties



## Compatible Printers



## Colours

- Black- B
- White- W
- Smoky Quartz Translucent

Available in 5kg bottles

## Introduction

Photocentric's Durable range is the most popular material among Photocentric's functional materials. They can handle impact, compression, bending and stress fatigue without breaking or deforming.

## Best Used for:

- Jigs and fixtures requiring minimal deflection at elevated temperature such as drills holders and air intakes
- Cover-plates and enclosures like automotive and motorsport interiors
- Fastenings, tools & couplings
- Strong and stiff prototypes

## Unique features

- Heat deflection temperature 80 °C
- High impact strength
- Tough, durable, and long lasting
- Simulating the strength and stiffness of ABS
- High definition and can hold fine details
- Smooth surface finish
- Print at 350 µm layer thickness (Translucent only)

## Processing Instructions

- To print with Photocentric Liquid Crystal Magna, choose 'Durable DL110HB' or 'Durable DL110HW' or 'Durable DL110HTR' at 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 3 hours at 60°C for Durable DL110HW
  - a minimum of 4 hours at 60°C for Durable DL110HB.
  - a minimum of 2 hours at 60°C for Durable DL110HTR.
- For DL110HB & DL110HTR-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.
- For DL110HW- 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.

## Properties

### Tensile Properties

Tensile Modulus *	2100 MPa	ASTM D638
Ultimate Tensile Strength *	60 MPa	ASTM D638
Elongation at break *	14%	ASTM D638

### Flexural Properties

Flexural Modulus *	2080 MPa	ASTM D790
Flexural Strength *	81 MPa	ASTM D790

### Impact Properties

Impact Strength Notched Izod *	110 J/m2	ISO 180
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### General Properties

Hardness *	85 Shore D	ASTM D2240
Heat Deflection Temperature	80 °C	ASTM D648
Water Absorption (Short Term)	1.06%	ASTM D570
Viscosity	480 cPs	At 25°C Brookfield spindle 3
Density	1.14 g/cm3	
Storage	10<T>50°C	

\* Mechanical properties stated based on fully cured material.