

# Technical Data



BR3D-DL-HARD Daylight  
Hard 3D polymers



## SPECS

### FEATURES

Photocentric's range of hard daylight polymers are ideal for making objects where you want a very hard object with no compressive ability under high force. It exhibits moderate 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.

### PROCESSING INSTRUCTIONS

Follow the procedures laid out in your 3D Liquid Crystal'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 making cleaned objects surface tack can be removed by leaving under water in sunlight for 10 minutes.

### DATA

|   |                        |
|---|------------------------|
| <b>Viscosity</b><br>(At 25°C Brookfield spindle 3)          | 230 cPs                |
| <b>Hardness</b><br>(After post exposure)                    | 77 Shore D             |
| <b>Tensile strength</b><br>ASTM D638 (After post exposure)  | 42 MPa                 |
| <b>Tensile strength</b><br>ASTM D638 (Before post exposure) | 15 MPa                 |
| <b>Tensile modulus</b><br>ASTM D638 (After post exposure)   | 2060 MPa               |
| <b>Elongation at break</b><br>ASTM D638                     | 8.7%                   |
| <b>Heat deflection temp</b><br>ASTM D648                    | 60°C                   |
| <b>Storage</b>  | 10<t>50°C              |
| <b>Density</b>  | 1.19 g/cm <sup>3</sup> |

### AVAILABLE COLOURS

**Amber, Cream, Red, Green, Grey, Black**

Available in 1kg bottles with non-drip cap.