# HARZ Labs Basic Resin

# SECTION 1: DESCRIPTION AND APPLICATION

Designed for daily use in 3D printers for printing models. Resin has weak odor, models are rigid, low shrinkage and high accuracy.

# SECTION 2: MATERIAL PROPERTIES

## 2.1 Characteristics of liquid

| Tested property | Standard/Method | Result (Metric) |
|---|---|---|
| Color | - | Red (semitransparent) |
| Odor | - | Weak |
| Density | ASTM D1298 | $1.1 \pm 0.1$ g/cm$^3$ |
| Viscosity (25 °C) | ASTM D2393 | $300 \pm 150$ mPa·s |

## 2.2 Mechanical properties

| Tested property | Standard/Method | Result (Metric) |
|---|---|---|
| Flexural Strength | ASTM D790 | $70.0 \pm 4.1$ MPa |
| Flexural Modulus | ASTM D790 | $1560 \pm 150$ MPa |
| Ultimate Tensile Strength | ASTM D638 | $39.8 \pm 4.2$ MPa |
| Elongation at Break | ASTM D638 | $5.9 \pm 1.5$ % |
| Hardness | ASTM D2240 | $79 \pm 2$, Shore D |
| IZOD Impact (Unnotched) | ASTM D4812 | $4.0 \pm 1.1$ kJ/m$^2$ |

## 2.3 Special parameters

| Tested property | Standard/Method | Result |
|---|---|---|
| Solubility (24h) | ASTM D3132 | $\leq 0.01\%$ |
| Sorption (24h) | ASTM D570 | $\leq 0.47$ % |