



HARZ Labs
MATERIALS FOR 3D PRINTING

HARZ Labs

Dental Clear Form2

Material Technical Data Sheet (TDS)

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SECTION 1: DESCRIPTION AND APPLICATION

Dental Clear Form2 resin is PMMA-like hard clear resin designed for printing models, used in dental application, where transparency is one of the main issues. It can be demonstration models for operation planning, surgical guides.

SECTION 2: MATERIAL PROPERTIES

2.1 Characteristics of liquid

Tested property	Standard/Method	Result (Metric)
Color	-	Transparent
Odor	-	Weak
Density	ASTM D1298	$1.1 \pm 0.1 \text{ g/cm}^3$
Viscosity (25 °C)	ASTM D2393	$300 \pm 150 \text{ mPa}\cdot\text{s}$

2.2 Mechanical properties

Tested property	Standard/Method	Result (Metric)
Flexural Strength	ASTM D790	$69.2 \pm 3.7 \text{ MPa}$
Flexural Modulus	ASTM D790	$1678 \pm 157 \text{ MPa}$
Ultimate Tensile Strength	ASTM D638	$37.0 \pm 4.0 \text{ MPa}$
Elongation at Break	ASTM D638	$6.4 \pm 2.2 \%$
Hardness	ASTM D2240	$80 \pm 3 \text{ no Shore D}$
IZOD Impact (Unnotched)	ASTM D4812	$4.4 \pm 0.2 \text{ kJ/m}^2$

2.3 Special parameters

Tested property	Standard/Method	Result
Solubility (24h)	ASTM D3132	$\leq 0.01 \%$
Sorption (24h)	ASTM D570	$\leq 0.47 \%$
Free Monomer Extraction	ISO 10993	Passed
Cytotoxicity	ISO 10993	Passed
Irritation	ISO 10993	Passed
Sensitization	ISO 10993	Passed

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