



HARZ Labs
MATERIALS FOR 3D PRINTING

HARZ Labs Dental IBT

Material Technical Data Sheet (TDS)

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SECTION 1: DESCRIPTION AND APPLICATION

Dental IBT is a flexible biocompatible material intended for orthodontic use in order to print indirect bonding trays.

SECTION 2: MATERIAL PROPERTIES

2.1 Characteristics of liquid

Tested property	Standard/Method	Result
Color	-	Clear
Odor	-	Weak
Density	ASTM D1298	$1.1 \pm 0.1 \text{ g/cm}^3$
Viscosity (25 °C)	ASTM D2393	$550 \pm 150 \text{ mPa}\cdot\text{s}$

2.2 Mechanical properties

Tested property	Standard/Method	Result
Ultimate Tensile Strength	ASTM D638	$20.0 \pm 5.0 \text{ MPa}$
Tensile Modulus	ASTM D638	$250.0 \pm 35.0 \text{ MPa}$
Elongation at Break	ASTM D638	$120 \pm 20 \%$
Hardness	ASTM D2240	$75 \pm 5 \text{ Shore D}$

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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