



**HARZ Labs**  
MATERIALS FOR 3D PRINTING

# HARZ Labs

## Dental Sand Form 2

Material Technical Data Sheet (TDS)

Version 1.2 / EN  
13 April 2021

## SECTION 1: DESCRIPTION AND APPLICATION

Ceramic-filled resin for printing temporary crowns and bridges with A1-A2 or A3 color according Vita scale. It has increased endurance, abrasion resistance and well polishing. Protective varnishes are recommended before use. It has good adhesion to cement when installed on the frame. The color depends on postcuring time.

## SECTION 2: MATERIAL PROPERTIES

### 2.1 Characteristics of liquid

Tested property	Standard/Method	Result (Metric)
Color	-	A1-A2/A3 (semitransperetn)
Odor	-	Weak
Density	ASTM D1298	$1.1 \pm 0.1 \text{ g/cm}^3$
Viscosity (20 °C)	ASTM D2393	$700 \pm 200 \text{ mPa}\cdot\text{s}$

### 2.2 Mechanical properties

Tested property	Standard/Method	Result (Metric)
Flexural Strength	ASTM D790	$105.4 \pm 5.2 \text{ MPa}$
Flexural Modulus	ASTM D790	$2100 \pm 100 \text{ MPa}$
Ultimate Tensile Strength	ASTM D638	$57.4 \pm 4.8 \text{ MPa}$
Elongation at Break	ASTM D638	$7.1 \pm 3.1 \%$
Hardness	ASTM D2240	$84 \pm 2$ , Shore D
IZOD Impact (Unnotched)	ASTM D4812	$6.2 \pm 0.5 \text{ kJ/m}^2$

### 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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