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HARZ Labs
MATERIALS FOR 3D PRINTING

HARZ Labs Dental Sand Pro

Material Technical Data Sheet (TDS)

Version 1.1 / EN
15 November 2022

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SECTION 1: DESCRIPTION AND APPLICATION

Dental Sand Pro is a composite resin with high amount of ceramic filler, designed for printing long term wear temporary crowns and bridges, with A1-A2, 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 color according Vita scale
Odor	-	Weak
Density	ASTM D1298	1.2 ± 0.1 g/cm^3
Viscosity (25 °C)	ASTM D2393	600 - 1200 mPa·s

2.2 Mechanical properties

Tested property	Standard/Method	Result (Metric)
Flexural Strength	ASTM D790	100.0 ± 5.0 MPa
Flexural Modulus	ASTM D790	3200 ± 200 MPa
Ultimate Tensile Strength	ASTM D638	70.0 ± 5.0 MPa
Elongation at Break	ASTM D638	4.1 ± 1.1 %
Hardness	ASTM D2240	96 ± 3, Shore D
IZOD Impact (Unnotched)	ASTM D4812	6.4 ± 0.2 kJ/m^2

2.3 Special parameters

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

The information above is believed to be accurate and represents the best information currently available to us. All test specimens were printed, cleaned, and post-processed per instructions provided by HARZ Labs company. Results provided here are representative of these processes and may vary if these established protocols are not followed. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall HARZ Labs LLC (ООО «ХАРЦ Лабс») be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if HARZ Labs LLC (ООО «ХАРЦ Лабс») has been advised of the possibility of such damages.

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