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HARZ Labs
MATERIALS FOR 3D PRINTING

HARZ Labs Dental Yellow Clear

Material Technical Data Sheet (TDS)

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SECTION 1: DESCRIPTION AND APPLICATION

Dental Yellow Clear is hard PMMA-like resin, made of biocompatible raw materials that used in UV-cured dental fillings. Designed for surgery guide modelling. Precise, transparent, very tough and hard, odorless.

SECTION 2: MATERIAL PROPERTIES

2.1 Characteristics of liquid

Tested property	Standard/Method	Result (Metric)	Result (Imperial)
Color	-	Yellow (transparent)	
Odor	-	Odorless	
Density	ASTM D1298	1.07 g/cm^3	0.0386 lb/in^3
Viscosity (20 °C)	ASTM D2393	0.4 Pa·s	0.269 lb/ft·s

2.2 Mechanical properties

Tested property	Standard/Method	Result (Metric)	Result (Imperial)
Flexural Strength	ASTM D790	71.2 ± 5.1 MPa	10.3 ± 0.7 ksi
Flexural Modulus	ASTM D790	1598 ± 160 MPa	232 ± 23 ksi
Ultimate Tensile Strength	ASTM D638	42.8 ± 4.9 MPa	6.2 ± 0.7 ksi
Elongation at Break	ASTM D638	7.2 ± 2.5 %	
Hardness	ASTM D2240	74 ± 2, Shore D	
IZOD Impact (Unnotched)	ASTM D4812	4.2 ± 1.1 kJ/m^2	2.0 ± 0.5 ft-lb/in^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. The Imperial values are converted from Metric measurements and are for reference only. 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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