



HARZ Labs
MATERIALS FOR 3D PRINTING

HARZ Labs Dental Clear Pro

Material Technical Data Sheet (TDS)

Version 1.0 / EN
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SECTION 1: DESCRIPTION AND APPLICATION

Dental Splint resin is PMMA-like hard clear resin designed for printing splints and kappas where high chemical resistance, low water uptake as well as transparency are important.

SECTION 2: POST PROCESSING

Printed parts should be washed with isopropyl alcohol. Washing cycles should be carried out until the parts are free of liquid resin and dry. Manual cleaning with a soft brush dipped in isopropyl alcohol will help speed up the rinsing process. After that, it is recommended to blow the printed parts with compressed air or heat them at 80°C for 10 min then cure in curing station (405 nm, 110 W) for 15 min or cure in Otofash G171 for 1000 flashes, afterwards warm up for 30 minutes at a temperature of 80° C.

SECTION 3: MATERIAL PROPERTIES

2.1 Characteristics of liquid

Tested property	Standard/Method	Result (Metric)
Color	-	Transparent (violet)
Odor	-	Weak
Density	ASTM D1298	1.1 ± 0.1 g/cm ³
Viscosity (25 °C)	ASTM D2393	1000 ± 200 mPa·s

2.2 Mechanical properties

Tested property	Standard/Method	Result (Metric)
Flexural Strength	ASTM D790	120.0 ± 20.0 MPa
Flexural Modulus	ASTM D790	2000 ± 156 MPa
Ultimate Tensile Strength	ASTM D638	80.0 ± 5.0 MPa
Elongation at Break	ASTM D638	6.2 ± 3.1 %
Hardness	ASTM D2240	85 ± 3, Shore D
IZOD Impact (Unnotched)	ASTM D4812	10.1 ± 1.0 kJ/m ²

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.

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

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