



HARZ Labs
MATERIALS FOR 3D PRINTING

HARZ Labs

Dental Denture Base

Soft

Material Technical Data Sheet (TDS)

Version 1.1 / EN
31 January 2024

SECTION 1: DESCRIPTION AND APPLICATION

Resin Dental Denture Base Soft designed for printing orthodontic models, dentures that have high requirements in hardness, elongation and flexibility.

SECTION 2: POST PROCESSING

Printed parts should be cleaned in isopropyl alcohol. Washing cycles should be conducted until the parts will be free of liquid resin. Manual brush cleaning will facilitate the process. It is highly recommended to blow the parts with compressed air and heat for 10 min at 80°C and postcure for 60 min (405 nm, 110W) in UV chamber or in Otofash G171 for 3000 flashes in inert atmosphere (nitrogen).

SECTION 3: MATERIAL PROPERTIES

2.1 Characteristics of liquid

Tested property	Standard/Method	Result (Metric)
Color	-	Pink(translucent)
Odor	-	Weak
Density	ASTM D1298	$1.1 \pm 0.1 \text{ g/cm}^3$
Viscosity (25 °C)	ASTM D2393	$1700 \pm 400 \text{ mPa}\cdot\text{s}$

2.2 Mechanical properties

Tested property	Standard/Method	Result (Metric)
Ultimate Tensile Strength	ASTM D638	$21.0 \pm 5.0 \text{ MPa}$
Tensile Modulus	ASTM D638	$250 \pm 25 \text{ MPa}$
Elongation at Break	ASTM D638	$65.0 \pm 15.5 \%$
Hardness	ASTM D2240	$89 \pm 3 \text{ Shore D}$
Sharp Impact resistance (notched)	ASTM D6110	$7 \pm 2 \text{ kJ/m}^2$

2.3 Special parameters

Tested property	Standard/Method	Result
Solubility (24h)	ASTM D3132	$\leq 0.01 \%$
Sorption (24h)	ASTM D570	$\leq 0.47 \%$
Cytotoxicity	ISO 10993	Passed
Sensibilization	ISO 10993	Passed
Free monomer	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.