



**HARZ Labs**  
MATERIALS FOR 3D PRINTING

# HARZ Labs Surdo Clear

Material Technical Data Sheet (TDS)

Version 1.0 / EN  
12 September 2024

## SECTION 1: DESCRIPTION AND APPLICATION

HARZ Labs Surdo Clear is a low viscosity, bio-compatible, UV stabilised clear resin for the preparation of audiology components and many other applications where bio-compatibility is important. HARZ Labs Surdo Clear is exceptional for high resolution parts for DLP machines with LED emitter peak wavelengths is 385nm.

## 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 70 °C for 10 min then cure in Otofash G171 for 3000 flashes.

## SECTION 3: MATERIAL PROPERTIES

### 3.1 Characteristics of liquid

Tested property	Standard/Method	Result (Metric)
Color	-	Transparent (violet)
Odor	-	Weak
Density	ASTM D1298	$1.1 \pm 0.1 \text{ g/cm}^3$
Viscosity (25 °C)	ASTM D2393	$300 \pm 200 \text{ mPa}\cdot\text{s}$

### 3.2 Mechanical properties

Tested property	Standard/Method	Result (Metric)
Flexural Strength	ASTM D790	$100.0 \pm 20.0 \text{ MPa}$
Flexural Modulus	ASTM D790	$1800 \pm 150 \text{ MPa}$
Ultimate Tensile Strength	ASTM D638	$55.0 \pm 8.0 \text{ MPa}$
Elongation at Break	ASTM D638	$9.5 \pm 2.0 \%$
Hardness	ASTM D2240	$90 \pm 3.0$ , Shore D
Charpi Impact (Unnotched)	ASTM D4812	$25.0 \pm 3.0 \text{ kJ/m}^2$

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.