

DENTAL RESIN

IBT Resin

Biocompatible Photopolymer Resin for Indirect Bonding Trays

Use Class I compliant IBT Resin to 3D print indirect bonding trays for a cost-effective, rapid dental bracket placement process for high quality orthodontics. IBT Resin prints full arch and quadrant bracket transfer trays quickly using 100 micron layer heights, reducing labor time and enabling higher throughput.

Indirect Bonding Trays



FLIBCL01

* May not be available in all regions

formlabs  | dental

Prepared 01 . 14 . 2021
Rev 01 - 01 . 14 . 2021

To the best of our knowledge the information contained herein is accurate. However, Formlabs, Inc. makes no warranty, expressed or implied, regarding the accuracy of these results to be obtained from the use thereof.

MATERIAL PROPERTIES DATA

IBT Resin

| | METRIC ¹ | IMPERIAL ¹ | METHOD |
|-----------------------------------|-------------------------------------|-------------------------|---------------|
| | Post-Cured ² | Post-Cured ² | |
| Mechanical Properties | | | |
| Ultimate Tensile Strength | 5.2 MPa | 754 psi | ASTM D638-14 |
| Young's Modulus | 18 MPa | 2.66 ksi | ASTM D638-14 |
| Elongation | 29 % | 29 % | ASTM D638-14 |
| Hardness Properties | | | |
| Hardness Shore A | < 90 A | < 90 A | ASTM D2240-15 |
| Disinfection Compatibility | | | |
| Chemical Disinfection | 70% Isopropyl Alcohol for 5 minutes | | |

IBT Resin has been evaluated in accordance with ISO 10993-1:2018, *Biological evaluation of medical devices - Part 1: Evaluation and testing within a risk management process*, and ISO 7405:2009/(R)2015, *Dentistry - Evaluation of biocompatibility of medical devices used in dentistry*, and passed the requirements for the following biocompatibility risks:

| ISO Standard | Description ³ |
|---------------------------|--------------------------|
| EN ISO 10993-5:2009 | Not cytotoxic |
| ISO 10993-10:2010/(R)2014 | Not an irritant |
| ISO 10993-10:2010/(R)2014 | Not a sensitizer |

The product was developed and is in compliance with the following ISO Standards:

| ISO Standard | Description |
|-------------------|---|
| EN ISO 13485:2016 | Medical Devices – Quality Management Systems – Requirements for Regulatory Purposes |
| EN ISO 14971:2012 | Medical Devices – Application of Risk Management to Medical Devices |

¹Material properties may vary based on part geometry, print orientation, print settings, temperature, and disinfection or sterilization methods used.

²Data for post-cured samples were measured on Type IV tensile bars printed on a Form 3B printer with 100 µm IBT Resin settings, washed in a Form Wash for 20 minutes in ≥ 96% Isopropyl Alcohol, and post-cured at 60 °C for 60 minutes in a Form Cure.

³IBT Resin was tested at NAMS World Headquarters, OH, USA.