

Biocompatible Clear MED610



MED610 is a transparent, biocompatible PolyJet™ material medically approved for bodily contact. The material is designed for both medical and dental applications and is approved for permanent skin contact (more than 30 days) and limited mucosal membrane contact (up to 24 hours).

MED610 has been evaluated and deemed acceptable for the following biological risks

| Test | Standard |
|-------------------------------|----------------------|
| Cytotoxicity | EN ISO 10993-5:2009 |
| Irritation | EN ISO 10993-10:2013 |
| Delayed-type hypersensitivity | EN ISO 10993-10:2013 |
| Genotoxicity | EN ISO 10993-3:2014 |
| Chemical characterization | EN ISO 10993-18:2009 |
| USP Plastic Class VI | USP 34 <88> |

| Property | Standard / Procedure | Value |
|-------------------------|-----------------------|--|
| Tensile Strength | D-638-03 | 50 – 65 MPa (7,252 – 9,427 psi) |
| Elongation at Break | D-638-05 | 10 – 25% |
| Modulus of Elasticity | D-638-04 | 2,000 – 3,000 MPa (290.1 – 435.1 ksi) |
| Flexural Strength | D-790-03 | 75 – 110 MPa (10,878 – 15,954 psi) |
| Flexural Modulus | D-790-04 | 2,200 – 3,200 MPa (319.1 – 464.1 ksi) |
| HDT @ 0.45 MPa | D-648-06 | 45 – 50 °C (113 – 122 °F) |
| HDT @ 1.82 MPa | D-648-07 | 45 – 50 J/m (113 – 122 °F) |
| Izod Notched Impact | D-256-06 | 20 – 30 (0.37 – 0.56 ft-lb/in) |
| Water Absorption | D-570-98 24HR | 1.1 – 1.5% |
| Tg | DMA E | 52 – 54 °C (126 – 130 °F) |
| Shore Hardness | Scale D | 83 – 86 D |
| Rockwell Hardness Scale | Scale M | 73 – 76 M |
| Polymerized Density | ASTM D792 | 1.17 – 1.18 (g/cm ³) (0.676 – 0.682 oz/in ³) |
| Biocompatibility | prEN ISO 10993-1:2017 | Skin contact – permanent (>30 days) Mucous membrane – short term (up to 24 hrs) |
| Sterilization Methods | --- | Gamma sterilization ¹ using a dose of 25–50 kGy Steam sterilization ² for four (4) minutes at 132 °C (270 °F) with fractionated pre-vacuum |
| Support Removal Type | --- | WaterJet or soluble |

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| System Availability | Minimum Layer Thickness Capability | Support Structure | Available Colors |
|-----------------------------------|---|---|------------------|
| Objet30 Prime™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706 (soluble) | Transparent |
| Objet30 Dental Prime™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706 (soluble) | Transparent |
| Objet260 Dental™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706 (soluble) | Transparent |
| Objet Eden260VS™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) | Transparent |
| Objet Eden260VS Dental Advantage™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) | Transparent |
| Objet260/500™ Connex1 | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706 (soluble) | Transparent |
| Objet260/500 Dental Selection™ | 16 microns (0.0006 in.) (high quality) | SUP705 (WaterJet removable) SUP706 (soluble) | Transparent |
| Objet260/350/500™ Connex3 | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706 (soluble) | Transparent |

All data provided herein, which is related to consumables, was collected from specific specimens and test conditions and is provided for information only. Characteristics may vary if different specimens and test conditions are applied. Unless expressly provided in writing, no warranties are made and warranties of merchantability or fitness for a particular purpose are expressly disclaimed.

¹ Gamma radiation may result in color change in the part.

² Allow the parts to cool down to room temperature before removing them from the autoclave. Flash autoclave may result in part deformations and changes to the flexural strength.

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