

Dental Materials



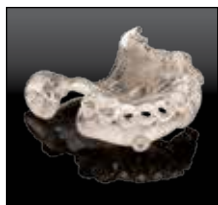
Advanced materials for superior digital dentistry and orthodontics.

Stratasys® offers an impressive array of dental materials for two of the most innovative 3D printing technologies, PolyJet™ and WDM™. Combining superior accuracy, high-precision and dimensional stability, the Stratasys dental line of 3D printers uses these materials to create a range of dental appliances, restorations and models with consistency and exactness.

PolyJet Technology

Stratasys offers four PolyJet materials for digital dentistry and orthodontics:

Clear Bio-compatible (MED610)



Transparent, bio-compatible material that is medically approved for temporary in-mouth placement.

Applications:

- Orthodontic appliances
- Delivery and positioning trays
- Full and partial denture try-ins
- Surgical guides

VeroGlaze™ (MED620)

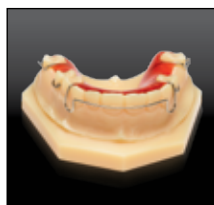


Opaque white material with A2 shading designed to provide the best color match in the industry with material properties similar to VeroDentPlus.

Applications:

- Veneer models
- Diagnostic wax-ups

VeroDent™ (MED670)



Natural peach-tone material with high quality detail, strength and durability.

Application:

- Models

VeroDentPlus™ (MED690)



Dark beige material that creates amazingly fine features and finish. VeroDentPlus also offers excellent strength and durability.

Application:

- Models

WDM Technology™

Stratasys offers non-toxic wax-like materials that burn out with no ash, residue, material shrinkage, cracking or expansion.

TrueCast™

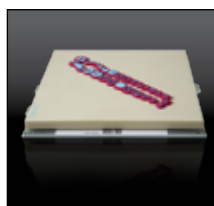


A firm but flexible material that allows you to 3D print any dental wax-up with extreme accuracy. It is 100% castable for any alloy.

Application:

- Castable material for the creation of dental wax-ups

TrueSupport™



Material that is quickly applied around the TrueCast materials to form a support structure. It is later dissolved away to reveal the wax-up for casting.

Application:

- Supports TrueCast material

Property	Standard/ Procedure	Clear Bio-compatible MED610	VeroGlaze MED620	VeroDent MED670	VeroDentPlus MED690
Tensile Strength (MPa)	D-638-03	50 – 65	55 – 65	50 – 60	54 – 65
Elongation at break (%)	D-638-05	10 – 25	15 – 25	10 – 25	15 – 25
Modulus of elasticity (MPa)	D-638-04	2000 – 3000	2300 – 3300	2000 – 3000	2200 – 3200
Flexural Strength (MPa)	D-790-03	75 – 110	80 – 100	75 – 110	80 – 110
Flexural Modulus (MPa)	D-790-04	2200 – 3200	2300 – 3200	2200 – 3200	2400 – 3300
HDT 0.45 MPa (°C)	D-648-06	45 – 50	45 – 50	45 – 50	45 – 50
HDT 1.82 MPa (°C)	D-648-07	45 – 50	45 – 50	45 – 50	45 – 50
Izod Notched Impact (J/M)	D-256-06	20 – 30	20 – 30	20 – 30	20 – 30
Water Absorption (%)	D-570-98 24HR	1.1 – 1.5	1.2 – 1.5	1.1 – 1.5	1.2 – 1.5
Tg (°C)	DMA E	52 – 54	52 – 54	52 – 54	52 – 54
Shore Hardness (D)	Scale D	83 – 86	83 – 86	83 – 86	83 – 86
Rockwell Hardness (scale M)	Scale M	73 – 76	73 – 76	73 – 76	73 – 76
Polymerized density (gr/cm3)	ASTM D792	1.17 – 1.18	1.17 – 1.18	1.17 – 1.18	1.17 – 1.18

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Property	TrueCast	TrueSupport
Material	Organic Compound	Wax Blend
Melting Point	95 - 115 °C (221 - 239°F)	50 - 72 °C (121 - 162 °F)
Toxicology Information	Non-toxic; registered by TSCA	Non-toxic; registered by TSCA

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