



X1

LUMIA DENTAL MATERIAL GUIDE

Hi-Speed SLA

Eliminate all tradeoffs between throughput, accuracy, feature resolution, and surface finish while printing 20x faster than conventional SLA.

The Lumia X1 Dental is a Hi-Speed SLA system that encompasses patented Hybrid PhotoSynthesis (HPS) printing, TruLayer technology, and an industry-wide material ecosystem. HPS Technology uses multiple energy sources to simultaneously image both expansive flat areas and intricate details. TruLayer technology facilitates rapid detachment of the active print layer, seamlessly transitioning to the next. Achieving diverse geometries is now possible with 2X-20X higher throughput compared to current technologies.

Our unique industry material ecosystem allows for pre-established solutions from leading material providers. See specific solution on the back.

Axtra3D is also proud to partner with Oqcam and exocad for superior workflow planning for every production run, achieving diverse geometries is now possible with 2X-20X faster than current technologies.



KeyModel Ultra™ - Light Grey & Ivory

Applications

Dental and orthodontic models

Tech-Specs

Ultimate Tensile Strength: >50 MPa
Tensile Modulus: 1700 MPa
Elongation at Break: 5%

Features

- Ultra-fast printing
- Integrated thermoforming quick-release agent
- Flawless detail
- Carve-able without chipping
- Impressive surface detail

KeyGuide®

Applications

Surgical guides

Tech-Specs

Ultimate Flexural Strength: 106 MPa
Flexural Modulus: 2400 MPa
Elongation at Break: 6,3%

Features

- Biocompatible capable per ISO10993-5 and ISO10993-10
- Autoclave sterilizable
- High strength and stiffness for withstanding typical forces during use
- Exceptional accuracy ensuring consistent fit of the guide and sleeves

KeySplint Hard® Clear

Applications

Rigid orthodontic and dental devices.
Bite planes, flexible nightguards, splints, repositioners and retainers.
Post-trauma tooth immobilization

Tech-Specs

Ultimate Flexural Strength: 100 MPa
Flexural Modulus: 2300 MPa
Elongation at Break: 9,0%
Shore Hardness: 89 D

Features

- Biocompatible capable per ISO10993-1
- United States FDA 510k-Cleared
- CE Marked (Class IIA)
- Unmatched Strength
- Stain resistant
- Highly abrasion-resistant
- Easy to polish

KeySplint Soft® - Clear & Violet

Applications

Orthodontic and dental appliances
Bite planes, mouthguards, Nightguards, splints and repositioners

Tech-Specs

Ultimate Flexural Strength: 45 MPa
Flexural Modulus: 1200 MPa
Ultimate Tensile Strength: 52 MPa
Tensile Modulus: 1790 MPa
Elongation at Break: >110%
Shore Hardness: 80-85 D

Features

- Biocompatible capable per ISO10993-5 and ISO10993-10
- Enhanced patient comfort
- Not brittle
- Fracture and abrasion resistant
- Flexible
- Highly abrasion-resistant
- Transparent



NextDent Denture Base

Applications

Full removable dentures
Partial removable dentures

Tech-Specs

Fracture Work: > 2000 J/m²
Stress Intensity Factor: >= 1.5 N/mm
Charpy Impact: >= 8,0 kJ/m²
Water Sorption: <= 32 ug/mm³
Water Solubility: <= 8 ug/mm³

Features

- Biocompatible capable per ISO10993-1
- High break resistance
- Flexibility for partial dentures
- Accurate and repeatable printability

Additional Product Information
888-315-5103, or sales@axtra3d.com



Printodent® GR-19.1 OA | MSI - Ocean Blue

Applications

Hard-elastic orthodontic splints with reduced biofilm adhesion

Features

- Reduced biofilm adhesion due to MSI® technology
- Hard flexible
- Highest wearing comfort due to thermo effect

Tech-Specs

Ultimate Flexural Strength: 56 MPa
Flexural Modulus: 1550 MPa
Water Sorption: $\leq 32 \text{ ug/mm}^3$
Water Solubility: $\leq 5 \text{ ug/mm}^3$
Total Fracture Work: $\geq 250 \text{ MPa/m}^2$

Printodent® GR-19.1 OA | MSI - Clear

Applications

Hard-elastic orthodontic splints with reduced biofilm adhesion

Features

- Reduced biofilm adhesion due to MSI® technology
- Hard flexible
- Highest wearing comfort due to thermo effect

Tech-Specs

Ultimate Flexural Strength: 56 MPa
Flexural Modulus: 1550 MPa
Water Sorption: $\leq 32 \text{ ug/mm}^3$
Water Solubility: $\leq 5 \text{ ug/mm}^3$
Total Fracture Work: $\geq 250 \text{ MPa/m}^2$

Printodent® GR-14.2 HI | MSI - Orange-Pink

Applications

Denture bases or applications requiring high fit accuracy

Features

- Reduced biofilm adhesion due to MSI® technology
- High Impact
- High accuracy of fit

Tech-Specs

Ultimate Flexural Strength: 82 MPa
Flexural Modulus: 2100 MPa
Water Sorption: $\leq 24.8 \text{ ug/mm}^3$
Water Solubility: $\leq 1.5 \text{ ug/mm}^3$
Total Fracture Work: $\geq 1700 \text{ J/m}^2$

Printodent® GR-17.1 - A2 & B2

Applications

FDA approved for temporaries and denture teeth

Features

- Biocompatible
- Double indication (temporary and denture teeth)
- Easy to clean
- Radiopaque

Tech-Specs

Flexural Stress: 169 MPa
Flexural Modulus: 5528 MPa
Water Sorption: $\leq 31.1 \text{ ug/mm}^3$
Water Solubility: $\leq 1.1 \text{ ug/mm}^3$
Shore Hardness: 80 D

Additional Product Information
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