



X1

LUMIA

DENTAL MATERIAL GUIDE

Hybrid PhotoSynthesis™ (HPS) and TruLayer™

Eliminate all tradeoffs between throughput, accuracy, feature resolution and surface finish.

The Lumia X1 is a Hi-Speed SLA system that encompasses patented Hybrid PhotoSynthesis (HPS) and TruLayer Technology.

HPS technology uses multiple energy sources to simultaneously image both expansive flat areas and intricate details. Meanwhile, TruLayer Technology facilitates rapid detachment of the active print layer, seamlessly transitioning to the next layer.

With the Lumia X1, traditional tradeoffs among accuracy, surface finish, throughput, and print reliability are now obsolete and accomplished within a single print. Standard waiting periods between layers are eradicated, freeing the process from limitations on the size and bulk of printed cross-sections. Achieving diverse geometries is now possible with 2X-20X higher throughput compared to 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



DATASHEET



MSDS

KeyOrtho Model®

Applications

Rapid production of orthodontic models

Tech-Specs

Ultimate Tensile Strength: 51 MPa
Tensile Modulus: 1850 MPa
Elongation at Break: 5.6%

Features

- Accurate
- Low shrinkage
- High-speed
- Withstands thermoforming temperatures



DATASHEET



MSDS

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



DATASHEET



MSDS

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

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



Printodont® GR-19.1 OA | MSI

Applications

Hard-elastic orthodontic splints with reduced biofilm adhesion

Tech-Specs

Ultimate Flexural Strength: 56 MPa
Flexural Modulus: 1550 MPa
Water Sorption: <= 32 ug/mm³
Water Solubility: <= 5 ug/mm³
Total Fracture Work: >= 250 MPa/m²

Features

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



Additional Product Information
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