





LUMIA INDUSTRIAL 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.



Ultracur3D® RG 3280

Applications

Tooling, Molding, Wind Tunnel Testing

Tech-Specs

Solid Part Density: 1.73g/cc Tensile Modulus: 10600 MPa Elongation at Break: 1,3% HDT , 0.455MPa: 284°C

Features

- Superior stiffness Superior temperature performance
- Very fast and easy to print
 High suspension stability
 Ceramic-like color and feel
- Biocompatible capable per ISO10993-5









Loctite® 3D 3843™

Applications

Manufacturing aids, Jigs and fixtures, Housings, Covers and insoles

Tech-Specs

Solid Part Density: 1.20g/cc Tensile Modulus: 1080 MPa Elongation at Break: 43%

Features

- High impact strength
 Semi-flexible
 Good impact resistance
 Excellent and matte surface finish
 Biocompatible capable per ISO10993-23 and ISO10993-5





Loctite® 3D IND3380™ - ESD

Applications

Jigs, Fixtures, Electronic Manufacturing, Tooling at high temperature and low pressure

Tech-Specs

Tensile Strength: 50 MPa Tensile Modulus: 3000 MPa Elongation at Break: 1-2%

Features

- High accuracy and fine detail printing Displays electrostatic dissipative properties (ESD)

Excellent stiffness and versatility

Figure 4® PRO-BLK 10

Applications

Motor housings, Connectors Snap-fits, Automotive interior components

Tech-Specs

Ultimate Tensile Strength: 63 MPa Solid Part Density: 1.16g/cc Tensile Modulus: 2320 MPa Elongation at Break: 12%

Features

- Improved environmental stability of mechanical - Improved environmental stability of mechand performance properties over time
 - Fast throughput for part-in-hand with no secondary thermal cure required
 - Simple, single solvent cleaning
 - Excellent surface quality and repeatability
 - Accurate, low distortion material for fast

- first article print success



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Figure 4® Hi-Temp 300-AMB

Applications

High temperature component testing Low pressure molding/tooling. Overmolding

Tech-Specs

Solid Part Density: 1.3g/cc Tensile Modulus: 4100 MPa HDT: >300°C

Features

- High-temperature resistant
- Translucent
- Impressive visualization properties
- No secondary thermal post-cure required Long term environmental UV and humidity stability







Figure 4® Tough Clear

Applications

Applications Lighting covers, cases, light guides Structural brackets, snap-fits, fasteners End-use manufacturing of high volume, small plastic parts, Consumer goods, consumer packaging

Tech-Specs

Solid Part Density: 1.2g/cc Tensile Modulus: 4230 MPa Elongation at Break: 12%

- Excellent clarity that can be further improved with post-processing steps like clear coating
 Ability to go from prototype to production parts using clear or transparent aesthetics
 Supports functional testing in outdoor settings
 Automotive fluid and chemical compatibility
 Prototypes have longer lives and can be reused for longer periods of time





Figure 4® MED-WHT 10

General medical applications requiring biocompatibility, sterilization and/or thermal resistance. Splints, surgical drill guides, bone models. Parts requiring rigidity with high temperature and/or water resistance. Parts with high-definition details

Tech-Specs

Solid Part Density: 1.27g/cc Tensile Modulus: 3090 MPa Elongation at Break: 3%

- Biocompatible capable per ISO10993-5 and ISO10993-10

- Sterilizable by autoclave High temperature testing True-to-CAD accuracy and crisp feature detail Smooth surfaces for beautiful display models







INFINAM® FR 4100 L - FR

Applications

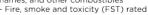
Automotive, Aerospace and Electronic industries Functional production. Ideal for applications with strong, permanent applied forces

Tech-Specs

Tensile Modulus: 1900 MPa Flongation at Break: 20,0% Flamm., UL94 & FAR 25.853(b): V-0 / 12sec @3mm

Features

- High elongation at break Good haptics
- Strong enough to withstand contact with sparks, flames, and other combustibles









S-Pro Engineering

Tech-Specs

High speed prototyping, Enclosure design, Mechanical parts for tooling

Tensile Modulus: 1900 MPa Elongation at Break: 20,0% Flamm., UL94 & FAR 25.853(b): V-0 / 12sec @3mm

- High resolution and performance
 Great thermal resilience properties
 Maintains high dimensional stability
 Ensures minimal shrinkage
- Smooth surface finish





