

Basic One

The acrylic based resin is ideal for rapid prototyping. Resin is optimized for two-photon polymerization at 780nm and 515nm wavelength.



Benefits of ResIQ Basic One

- High precision and resolution: suitable to print micro-objects with sub-micron resolution (down to 200nm).
- fast printing proces due to high sensitivity.
- Compatible with wavelength 780nm and 515nm.
- Removable by organic solvents or plasma (O₂).
- High material strength.
- Cost effective.

ResIQ Basic one is suitable for

- Proof of design
- Rapid prototyping of micro-objects
- Microcomponents
- Mastering 2.5D structures and copying them using replication technologies

Hybrid One!

Hybrid One is our most advanced printing material, particularly useful for printing components for harsh environment applications or as a very stable and robust material for printing final products. It is optimized for 3D printing in 2PP systems operating at 780nm and 515nm laser wavelengths.



Benefits of ResIQ Hybride One:

- High sensitivity: reducing the exposure dose required for polymerization and thus the writing time.
- High accuracy and resolution: enables the printing of complex 3D micro and nanostructures with a high level of detail.
- Minimal shrinkage.
- High material strength
- Chemically resistant: to most organic solvents
- High Thermal stability (up to 270 °C) makes it compatible with application in some high temperature processes like atomic layer deposition (ALD), PECVD, PVD, etc.

ResIQ Hybride One is suitable for:

- Micro-optical components
- Rapid prototyping
- PDMS castings (molds)

Bio One

Biocompatible resin optimized for application in biomedical engineering. It is optimized for 3D printing in 2PP systems operating at 515nm laser wavelengths.



Benefits of ResIQ Bio One

- biocompatible material, non-cytotoxic according to ISO 10993 and viability < 90% MTT test.
- Material with low autofluorescence.
- High accuracy and resolution.
- Excellent adhesion with a wide range of substrates such as silicon, glass, metals, plastics.
- Minimal shrinkage.
- High Thermal stability: reliably withstands temperatures up to 200 °C and can be sterilised by autoclaving.

ResIQ Bio One is suitable for:

- Tissue Engineering scaffolds with rigid structure
- Microcomponents with direct contact with cells
- PDMS molding/casting
- Microfluidic chips and components
- Optical components without unwanted staining and fluorescence

ResIQ properties

	ResIQ-Basic One	ResIQ-Hybrid One	ResIQ-Bio One
Viscosity [Pa·s]	1.0	2.0 ±0.5	2.0 ±0.5
Laser sensitivity [nm]	515 / 780	515 / 780	515
Volume reduction [%]	5-7	5-7	5-7
Refractive Index [-]	1.5	1.5	1.52
Young's modulus [GPa]	0.25	Aprox. 1	0.1-0.5
Resolution for 2PP	≤ 200nm	≤ 100nm	≤ 100nm
Storability	6 months	6 months	6 months

ResIQ developer

ResIQ developer is suitable for all our ResIQ resins. The developer allows excess unpolymerized resin to be washed out inside fine details and has low impact on swelling or deformation of printed objects during drying.

