Datasheet

IPFL MPC12

Clear accurate multipurpose photopolymer

MPC12 is a Multi Purpose Clear resin ideal for producing functional prototypes, master patterns for RTV casting and investment casting patterns.

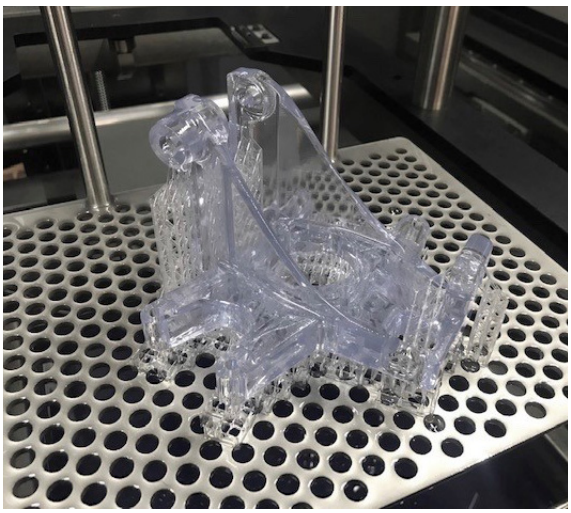
Its unique formulation is optimised to balance build speed, mechanical properties, clarity and accuracy in all rapid prototyping systems using solidstate 355nm lasers.

The liquid resin has a low viscosity which not only speeds building, but also makes clean-up quicker and easier.

Postcured parts are water-resistant and have a flexural modulus comparable to many popular engineering polymers, such as ABS, unfilled nylon and polyester. They also exhibit excellent strength and impact properties, and the elongation to break is high enough to allow the assembly of snap-fit components.

The resins class-leading clarity is comparable to acrylic or polycarbonate injection mouldings. Differential shrinkage, usually an issue with other clear stereolithography resins, has been greatly reduced. This, combined with the exceptional sidewall quality, results in parts which are highly accurate out of the vat and require less finishing.

Build styles available for all popular SLA Machines.



Key Technical Data

Test	Value
Viscosity	230cps
Dp	5.7mJ/cm²
Ec	9.7mJ/cm²
Tensile Strength, D638M	50 - 56 MPa
Tensile Modulus, D638M	2,700 - 2,920 MPa
Elongation at Break, D638M	8% - 15%
Elongation at Yield, D638M	3% - 4%
Izod Impact, Notched, D256A	2.05KJ/m²
HDT @0.45MPa	49°C

Features

- Excellent clarity
- Low differential shrinkage
- Highly accurate
- Excellent mechanical properties
- Fast to build
- Quick and easy clean-up
- Excellent sidewall quality
- Water resistant
- Optimised for 355nm lasers

Applications

- Functional prototypes
- Lenses and optical guides
- RTV master patterns
- Investment casting patterns
- Flow visualisation
- Photo-elastic testing