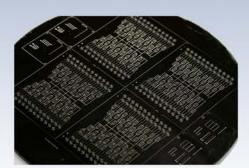
NiColoy™ Electroformed Optics and Nanofluidics

Electroformed optical mold inserts

Electroformed optical mold inserts eliminate the need to machine numerous costly inserts for multi-cavity molds. NiCoForm, Inc. electroforms such inserts from diamond-machined metal optics, laser-written patterns in photoresist, etched silicon or various alternative originals. Fresnel lenses, lenticulars, spherics, aspherics and diverse diffractives can be inexpensively reproduced by this method in quantities necessary to populate multiple mold cavities for mass production. High replication fidelity, superior wear resistance and durability distinguish NiColoyTM electroforms. Multiple identical stampers and inverted (mirror) patterns can be easily produced. Electroformed tooling used in the mass production of plastic optical components significantly shortens time to market and reduces manufacturing costs.





Electroformed Nanofluidic Molding and Embossing Tools

Precision electroforming methods are used by NiCoForm, Inc. to produce fine-featured metal replicas from etched silicon, glass or photoresist originals. High aspect ratios, sub-micron accuracy, superior wear resistance and durability distinguish NiColoy™ electroformed tooling. Multiple identical stampers and inverted (mirror) patterns can be easily produced. Such electroformed dies find use in the mass production of plastic 'Lab on the Chip' carriers using a single robust metal form. This technology eliminates the need for numerous silicon stampers (that are prone to failure by cracking) thus significantly reducing manufacturing costs.



Electroformed Reflectors and Mirrors

Metal optics, such as reflectors and mirrors similar to the ones depicted on the left, can be quickly and cost-effectively mass-electroformed from precision mandrels. They can be produced with desired high reflectivity coatings such as Gold, Silver, Rhodium, etc., boosting their optical performance and durability.

