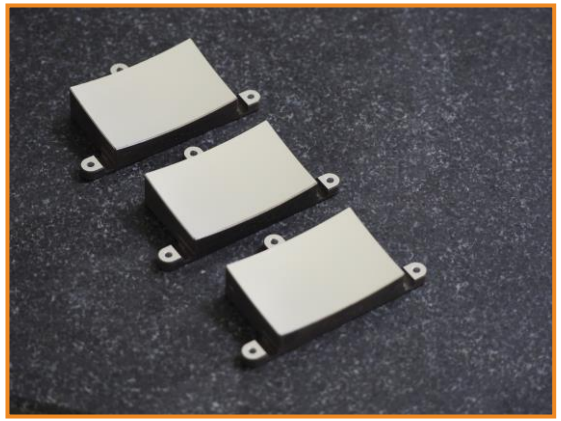
Wielandts upmt

UPM	DPI™	HiFi Optics™



Space Mirrors

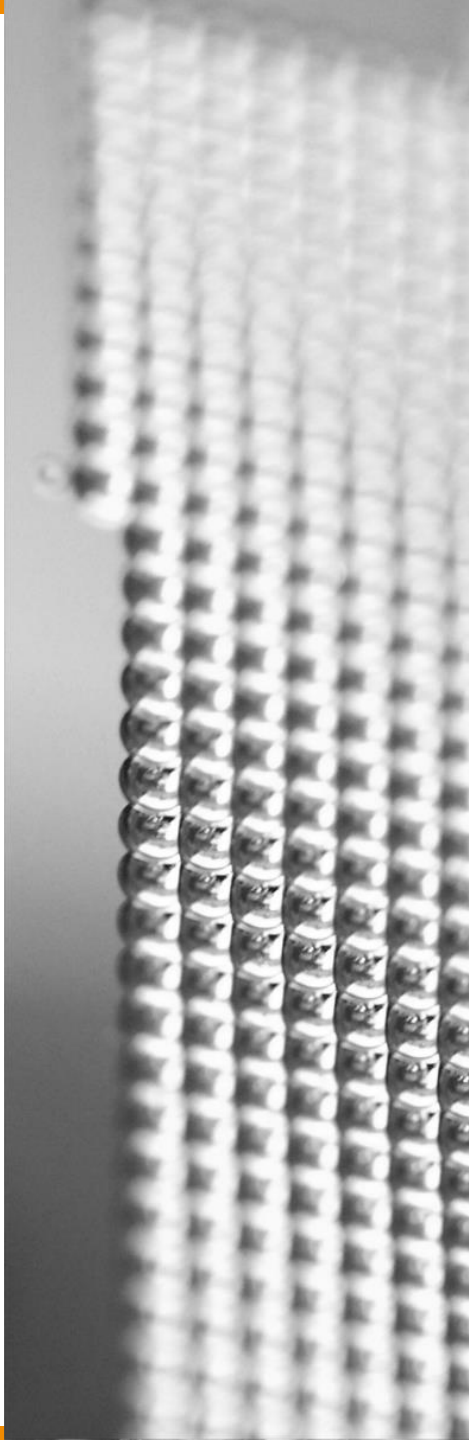
Inserts and Masters

Polymer Optics

WE ENABLE YOUR NEXT GENERATION OPTRONICS PRODUCTS

Marc Wielandts 2020-07-06

EPIC Online Technology Meeting on Polymer Optics



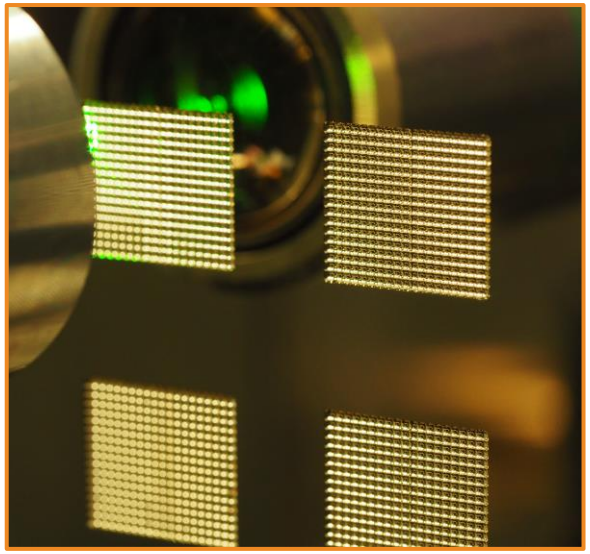
DPI™ LENS ARRAY INSERTS & MASTERS

Technology: Sequential on-axis diamond turning of every lens surface

- *100% fill factor with perfectly sharp edges*
- *Nanometer roughness: typ Ra < 5 nm*
- *Best form accuracy: typ 100 nm p-v*
- *Shapes: aspherical/freeform/diffractives, sags up to 10mm, slopes up to 80°*
- *Alignment fiducials machined in same setup*

Applications:

- *Injection molding*
- *Polymer-On-Glass Wafer Level Optics,*
- *R2R, R2P*



HIFI OPTICS™ ULTRA PRECISION THERMOPLASTIC OPTICS

Technology: Isothermal Wafer Level Molding of High Design Freedom Lenses

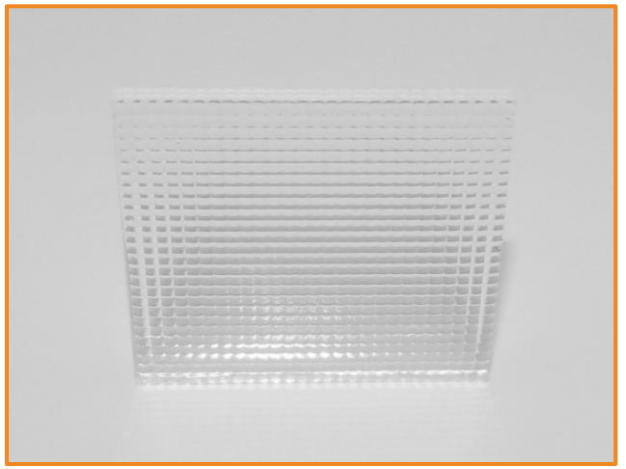
- *Materials: COC (APL), PC (EP), COP (ZEONEX), …*
- *Shapes: high molding ratio (up to 8), thin sections (down to 160µm), high slopes (up to 80°)*
- *Lens centration accuracy: down to 2µm*

Applications: CCM for smartphones and AR/VR, …

Technology: Injection-compression Wafer Level Molding of MLA structures

- *Materials: PC (Covestro LED2245), …*
- *100% fill factor*
- *Nanometer roughness: typ Ra < 10 nm*
- *Form accuracy: typ 500 nm p-v*

Applications: LIDAR, …



CONCLUSIONS

What can we do for you?

- *Augment your design freedom*
- *Reduce form and roughness errors*
- *Compensate replication process effects*
- *Shorten your time to production*

What can you do for us?

- *Make use of new design freedom offered by our technologies and,*
- *Submit us your applications early in your design phase!*

→ Contact us:

marc.wielandts@upmt.be

+32 499 37 65 33

Member of:

Phabulous

PHOTONICS21

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European Photonics Industry Consortium

Thank you for your attention!

Thanks EPIC!