

FOR IMMEDIATE RELEASE

Additive Manufacturing Services for Large Format Optical and Light Guiding Textures

WEMELDINGE, NETHERLANDS / SAN JOSE, CALIFORNIA, USA – JUNE 2021 – Luximprint, a global leader in multi-market rapid prototyping services for custom optics and Optographix based in The Netherlands and SilvaCo Optics, Luximprint's formal California representation agency, are delighted to announce the availability of large format, 3D printed optical light guiding plates and textures. Whereas the availability of the services on its own is not new, recent technology optimizations have taken the feasibility and versatility of manufacturing for large format optics in particular to a next level, making it worth to put its availability in the spotlight again.

Challenges in Traditional Fabrication

When it comes to the fabrication of custom optics, especially in large format, conventional fabrication methods have only limited time – and budget consuming approaches to offer. Often, subtractive turning processes, such as milling and turning, are at the core of nearly any manufacturing process out there. No matter it relates to direct fabrication of optical parts in small quantities, or to shaping the manufacturing tooling as required for large volumes, the primary ways of making are through subtractive approaches.

Having one-offs fabricated for event display, demonstration purposes, design or tooling validation therefore are a typical blow in the engineering budget these days. Unless a direct commitment to soft or direct hard tooling investment is provided with all risky investment challenges involved. This cuts down engineering flexibility, and asks companies to take significant upfront investments risks, commit to minimum order quantities, and follow time-consuming approaches.

3D Printing Large Format Optics

The flexibility novel additive processes can offer, on the contrary, help to speed up manufacture, increase flexibility and reduce and/or delay the initial tooling investments. As soon as the initial prototypes are available and validated, one can switch in a confident way to the next phase including investment in high-volume tooling, if applicable, or just stick to the additive process to have small quantities produced. But not before the design and functionality of the parts to fabricate are validated by internal or external stakeholders.

Marco de Visser, Co-Founder and Director of Marketing and Sales at Luximprint explains:

“We’re excited to put our large format 3D printing capabilities for custom light guiding and textured plates in the spotlight. Shaping large format optics is not easy and a cost- and time consuming process. Our technology has proven to be of great help over recent years when it comes to concept and tooling validation of large format optical sheets, before the final step to series tooling has to be made. Luximprint approaches help our users to reduce upfront capital investments, reduce the time to market and delay tooling investments”.

Printed Optics Methodologies

Luximprint 'Printoptical Technology' enables highly precise deposition of micro-scale droplets on any given optical substrate. The substrate can be rather small, or a sheet like carrier, with sized nearing one SQM. By giving the droplets some time to flow before they get finally cured, smooth optical features can be generated straight from the process. This eliminates the need for post-processing, such as polishing or grinding. Instead of optically smooth surfaces, randomly 'frosted' or heavily 'textured' surfaces can be generated too, or just a combination of both.

Sheets of optical plastics, such as acrylics, are commonly used as a carrier for the structures, but the Luximprint platforms can handle glass based substrates too, as well as a variety of clear and non-translucent custom substrates. Interestingly, the process can be utilized to rework existing 'off-the-shelf' sheet and lens materials, optimize and test them before re-tooling.

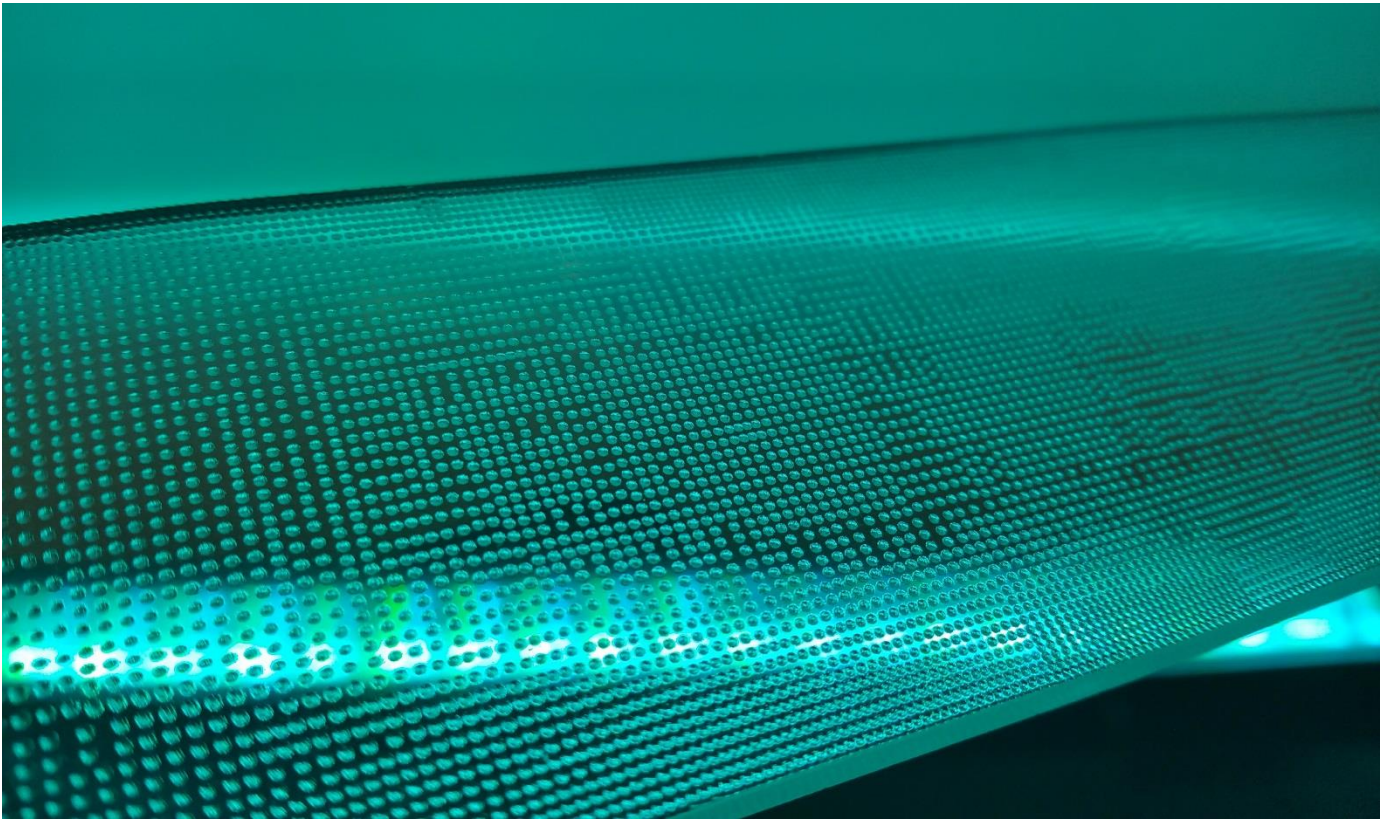
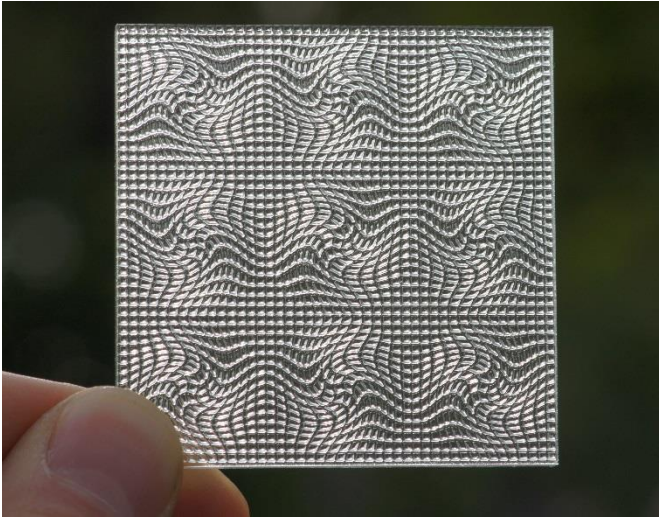
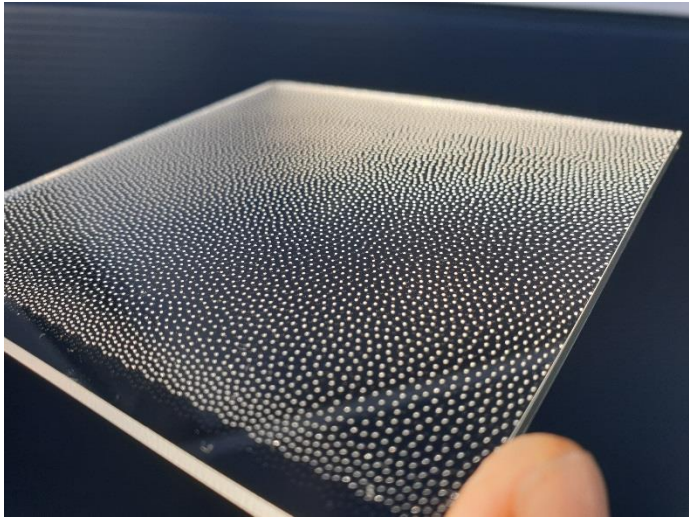
Application areas

Large format optics are typically used in a broad range of functional and decorative applications. The optical sheets find their way in 3D television, holography, display items, advertising displays, signage, general lighting applications, build architecture, HUD devices, among multiple others.

Peter Silva, Principal of SilvaCo Optics and Luximprint Representation for the Bay Area shares his excitement: *"We've been working with Luximprint for quite a while now, and are still very impressed about the evolving capabilities this emerging optical 3D printing process offers. Speaking large format optics, we found there is quite a lack of awareness in the market about the availability of these novel additive fabrication methodologies and we believe it deserves the attention of anyone involved in the upfront design and engineering process. We're delighted to help our customers add value to their upfront design and validation process and help shaping new opportunities for functional back- and side lighting applications".*

California based companies in search for fast, flexible and cost-effective optics solutions are encouraged to contact Silvaco to discuss their next projects. With typical lead times of 5-10 business days and global delivery with local support, rapid availability of custom optics is guaranteed.

IMAGES



MORE INFORMATION

About Luximprint

Luximprint, based in Wemeldinge, The Netherlands, offers Additive Manufacturing Services for decorative and functional optical plastics. Services are offered to engineering and design professionals in illumination markets that aim for a faster, more flexible and cost-efficient development cycle. Key product solutions include printed optics, reflective surfaces, textured surfaces and Optographix. Direct 'CAD-to-Optic' manufacture avoids the costly commitments related to tooling and inventory in conventional fabrication, and opens door to new possibilities in high tech system design and development.

www.luximprint.com

For more information and high resolution images, please contact:

Luximprint

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About SilvaCo

SilvaCo Optics is committed to open, long term professional relationships with both principals and customers. Success is measured in customer satisfaction before and after the sale. Through discipline and hard work the goal of SilvaCo is to provide its principals a higher value of representation than even direct personnel.

www.silvacooptics.com

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