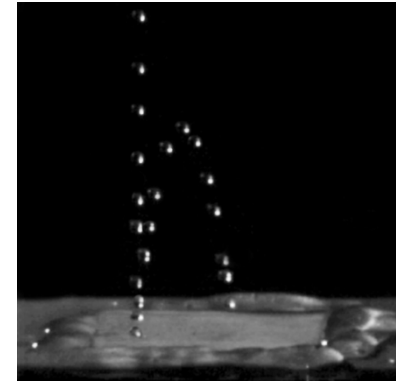


Objective

Lightmotif creates unique surface structures in metals by laser treatment.

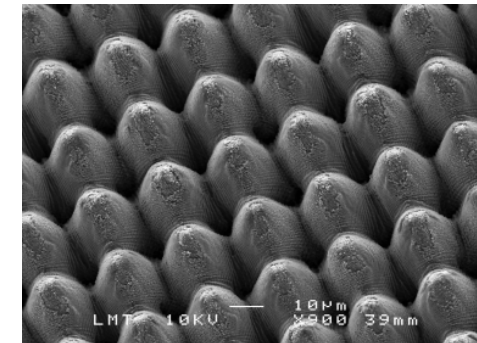
FUJIFILM is evaluating new high added value products to be manufactured on their existing chill roll process line.

The aim is to create super hydrophobic surfaces on plastics by using a metal, laser textured, mould. These surfaces have a high potential in self cleaning applications in buildings and for medical purposes.



Research topics

- Laser processing parameters for texturing mould surfaces
- Injection moulding of super hydrophobic structured plastics using the laser textured mould, as a demonstrator for production on FUJIFILM's chill roll process line
- Durability (weathering) of textured plastic surfaces



Industrial benefits

- Plastics with superior properties - weather resistant, and hydrophobic - can now be produced at low cost in large quantities enabling the use of this technology in low cost products
- Cost reduction by more than a factor 250:
 - laser surface treatment of individual products costs $> 25 \text{ €/cm}^2$
 - using laser treated moulds cost per product $< 0.10 \text{ €/cm}^2$
- Cost per product can be further reduced by using chill roll process

