

NEW PRE-COATED SCREEN-PRINTING STENCILS FROM PROELL

Volker Schwittay at Proell Services, describes how the company is ensuring the continued availability of pre-coated mesh materials with its new P-PCM and P-SCM screen-printing stencils



Volker Schwittay, Managing Director, Proell Services GmbH

Traditionally, polyester mesh is frequently used in screen printing for stencil production. Many companies are already successfully using industrially pre-coated polyester mesh in their screen-printing processes. These fabrics significantly simplify and shorten the screen-printing, stencil-production process. Manual tasks, such as degreasing and coating, are eliminated and the consumption of cleaning agents and water is significantly reduced.

Proell Services has also successfully processed these innovative pre-coated fabrics for decades at its locations in Hildesheim, Leipzig and Munich, Germany.

FROM OLD TO NEW

Recently, the proven pre-coated fabric (PCF) mesh has been discontinued and only limited stock with a short shelf-life remains available. Early on, as a long-standing processor of pre-coated mesh, Proell Services began exploring alternative products.

To ensure supply security and consistent quality in screen-printing production, the company now introduces its new alternative products. The Proell Pre-Coated Mesh (P-PCM) and Proell Self-Coated Fabric (P-SCF) screen-printing stencils from Proell Services, Germany:

- P-PCM – industrial emulsion rolls pre-coating of PET mesh in a cleanroom. P-PCM also provides its customers with fully coated and exposure-ready screen-



P-PCM single-use MDF screen-printing stencils

- P-SCF – standardised and automated emulsion coating of printing screens

The high-quality, high-modulus fabrics are coated in a cleanroom with a solvent-resistant, high-purity diazo-UV polymer emulsion. This is applied in a defined layer thickness and surface roughness.

Print shops can provide their own frames or order new steel or aluminium frames from

Proell Services. The company also offers P-PCM on its new custom-made, sustainable, disposable MDF frames.

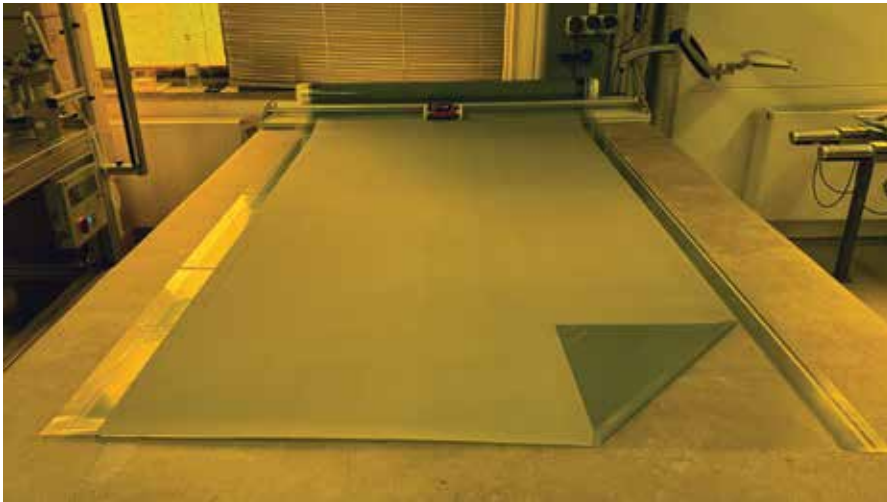
TECH SPEC

Technical specifications for Proell P-PCM pre-coated, screen-printing mesh are:

- Coating thickness of 4–8µm
- Coating thickness tolerance of ±2µm
- Low value 3–4µm (roughness)



P-PCM pre-coated mesh roll material



P-PCM pre-coated mesh roll material

Custom stencil thickness parameters are available upon request.

The following mesh types are available as standard:

120-30	140-30	150-31
120-31	140-31	165-27
120-34	150-30	180-31

Custom fabric types are available upon request

APPLICATIONS AND OUTLOOK

The innovative P-PCM screen solution is already being used in industrial screen printing for packaging and label printing. However, these screens are suitable for many other applications. Due to the 136cm coating width of the pre-coated P-PCM mesh, the maximum screen-printing stencil width is approximately 110cm.



P-PCM metal frame, screen-printing stencil with pre-coated mesh

“The innovative P-PCM screen solution is already being used”

Various mesh counts are available as standard to enable printing of both large areas and fine details. The defined and consistent emulsion over mesh (EOM) and micron values guarantee high print quality. This significantly reduces the scrap rate in the printing process. Thanks to the high process stability, customer projects have already successfully produced print runs of over 50,000 units.

The company processes Proell PCM screen-printing stencils at its Proell Services branches in Hildesheim, Leipzig and Munich, Germany. This ensures short lead times and reliable availability in certified and documented quality.

Computer to screen (CtS) exposure systems for high-resolution, screen-printing stencil exposure are also available at all Proell Services locations. This enables screen-printing companies to outsource their prepress operations and take advantage of the cost-effective and efficient stencil production offered by Proell Services.

“Various mesh counts are available as standard”

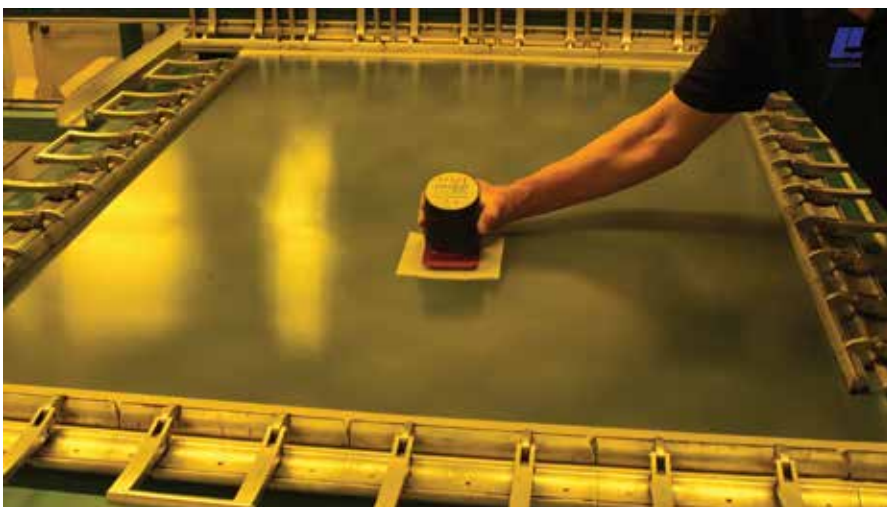
CONCLUSION

Trained screen printers, technicians and master screen printers are available to provide technical support at all Proell Services branches. In one of the next issues of *Specialist Printing Worldwide*, the company will report on the P-SCF. This is a standardised and automated emulsion coating of printing screens in a cleanroom. It has been installed at the Proell Services branch in Munich, Germany. ■

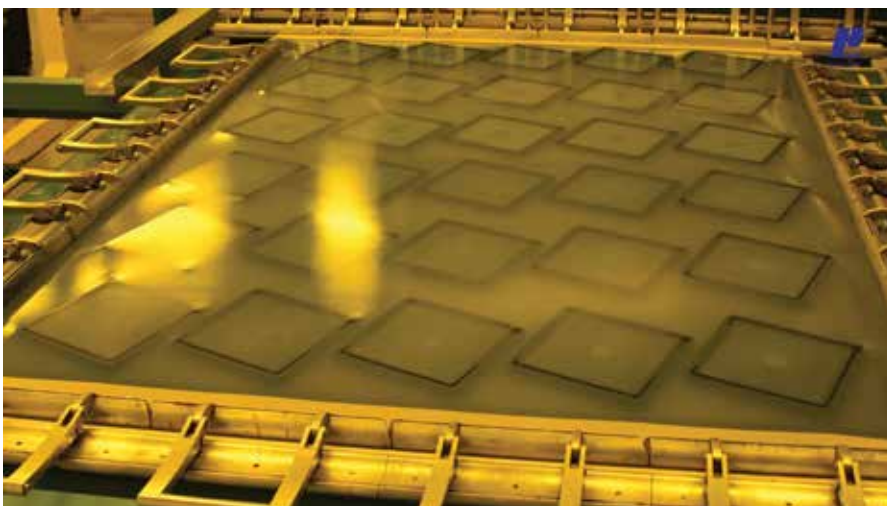
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P-PCM mesh tension control



P-PCM screen stretching process