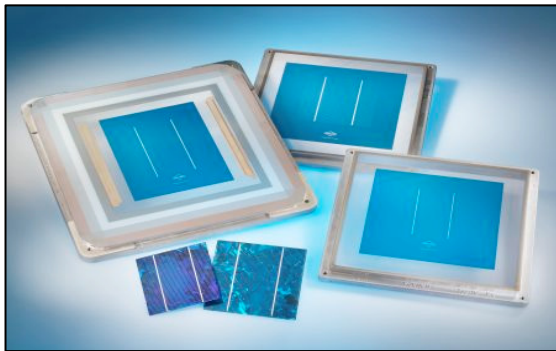


Precision screens for solar cell metallisation

Improved efficiency is achieved with KOENEN precision screens.

For with KOENEN Precision screens flawless direct printing of conductors on the silicon screen or its anti reflection layer is possible even with very small line width and height. This allows keeping the shading of the solar cells through the contact conductor at a minimum. This produces optimum efficiency.

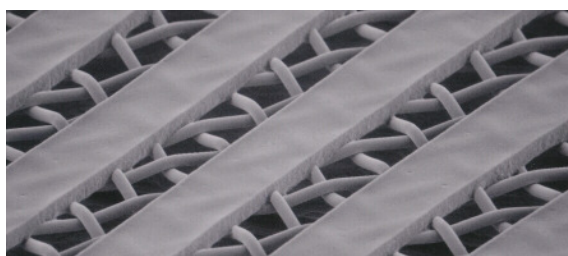


Printing process factors:

- Frame size
- Screen tension
- Coating material
- Coating height
- Copy development process
- Application accuracy

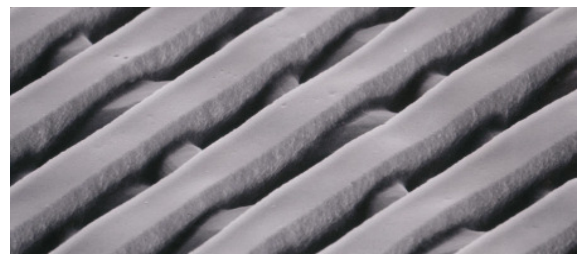
To prevent interruptions of the conductor structures and other defects KOENEN precision stencils are manufactured under air-conditioned clean room conditions starting from the photo plot to the finished precision screen. This guarantees maximum precision of the printed structures while improving the efficiency of the cells.

Stainless steel wire fabrics with small wire diameter and large open screen area are suitable especially for *front page printing*.



Fabric: 230 to 325 mesh | 24-30 µm wire Ø

Stainless steel wire fabrics between 180 and 250 mesh with a wire diameter of 30-40 µm are suitable for *back printing*.



Fabric: 180 to 250 mesh | 30-40 µm wire Ø

Direct coating

- Photo-sensitive liquid emulsion is directly applied to the fabric using a coating system

High-resolution direct coating

- Direct layer with high-resolution emulsion or film coating for "Fine-Line-Printing"

Direct/indirect coating

- The screen printing film is laminated onto the fabric using emulsion

Capillary coating

- The screen printing film is drawn into the fabric wetted with water

**Subject to technical changes*