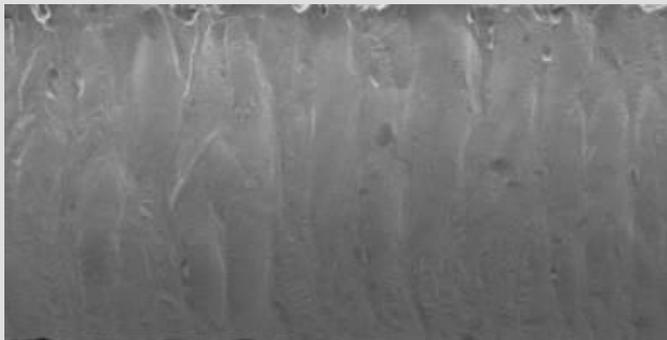
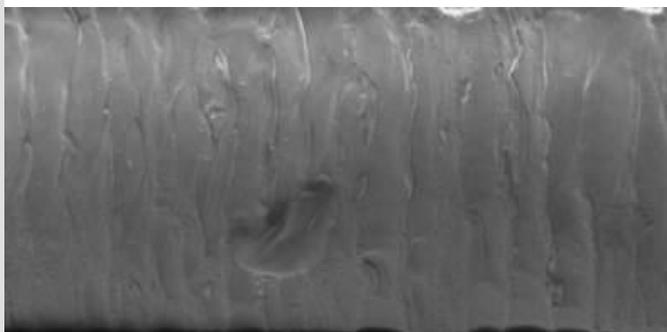


# DEK Fine-Grain Stencil Technology

**MAXIMUM PASTE VOLUME STABILITY FOR FINE-PITCH APPLICATIONS**



DEK Fine-Grain



Standard stainless steel

Selecting the appropriate stencil material has a significant impact on the printing process.

DEK Fine-Grain stencils offer superior solder paste transfer efficiency compared to standard stainless steel stencils.

The grain structure of the DEK Fine-Grain stencil produces smoother aperture walls after the laser cutting process. With its smoother aperture walls, DEK's Fine-Grain stencil technology helps to optimize the printing process for fine-pitch application.



## DEK Fine-Grain stencil technology

With their grain structure ranging from 1 to 2  $\mu\text{m}$ , DEK Fine-Grain Stencils feature an aperture roughness of only 1.5  $\mu\text{m}$  after the laser cutting process.

The up to 20 times finer grain of the DEK Fine-Grain material makes for extra-smooth laser cuts with a roughness value of only 1.5  $\mu\text{m}$ .

Thanks to the improved transfer efficiency of DEK Fine-Grain stencils, you can safely print apertures with an area ratio of as little as 0.6.

## Your benefits at a glance:

- Print fine-pitch apertures with an area ratio as small as 0.6
  - More paste volume stability
  - Fewer defects due to insufficient solder
- Reduced wall roughness makes for better paste separation and transfer
- Cleaner release reduces the understencil cleaning frequency
- Exceptional foil flatness improves gasketing and increases the life of the stencil
- Thickness tolerance improved by 50 percent
- More performance at lower cost
- Supports high-density and multilayer stencil printing with proprietary high-density properties

# DEK Fine-Grain Stencil Technology

## Better fine-pitch printing results

DEK Fine-Grain stencils give electronics manufacturers the ability to reliably print circuit boards for even the smallest components in fine-pitch applications.

Using DEK's stencil process expertise, DEK Fine-Grain stencils deliver repeatable printing results across many cycles and keep your printing process stable even for PCBs with lots of component diversity.

You benefit from improved line yield and less need for rework.

## Minimum surface roughness

The low surface roughness ensures accurately defined solder paste transfers and optimized deposit quality. Optimized transfer efficiency ensures more consistent paste volumes.

Stress relief properties make it well suited to intricate high density and multilevel stencils.



**DEK Fine-Grain**



**Standard stainless steel**

Technical data		
	<b>NEW DEK Fine-Grain</b>	<b>Standard stainless steel</b>
<b>Grain</b>	1 – 2 µm	15 – 25 µm
<b>Aperture wall roughness (laser-cut)</b>	1.5 µm	3 µm
<b>Thickness tolerance</b>	2 %	4 %
<b>Area ratio</b>	0.6	0.66
<b>Material hardness</b>	430 (HV)	370 (HV)

**Address for orders and invoices**  
Send any orders and/or invoices to this address only )

**ASM Assembly Systems Switzerland GmbH**  
Hardturmstr. 105  
CH-8005 Zurich, Switzerland

E-mail: [info@asmpt.com](mailto:info@asmpt.com)  
[www.dek.com](http://www.dek.com)

ASM Assembly Systems Germany GmbH  
c/o ASM Assembly Systems Germany GmbH

Theodor-Heuss-Str. 57  
61118 Bad Vilbel, Germany  
Tel: +49 6101 5227-0  
Fax: +49 6101 5227-517

E-mail: [info.de@asmpt.com](mailto:info.de@asmpt.com)  
[www.dek.com](http://www.dek.com)

This brochure contains only general descriptions and/or features which may not apply to a specific product or may change as a result of new product developments. Specific features are only binding if they were expressly specified in the respective contract.