

SEFAR PCF – the system that ensures process reliability in screenprinting

SEFAR PCF is sectionally pre-coated mesh for industrial screenprinting. Large numbers of CD printers are already making successful use of this new development from Sefar to print compact discs. The product is due to be launched onto the general market at the Replitech fair. What are the experts saying about SEFAR PCF's process reliability, print quality and cost-effectiveness? We put this question to Herbert Frintrup.

Hans Frintrup GmbH is one of the leading suppliers to the screenprinting industry. Hans Frintrup established this company in Bonn in 1965, and nowadays its management is in the hands of Hans-Herbert Frintrup. Most of its 25 employees work in the stencil production department, which occupies an area of 3000 m² on its own. The Frintrup company has just extended its digital pre-print range to include CTS – Computer to Screen.



Interview with Herbert Frintrup

1. You have worked with SEFAR PCF for some time now. Could you tell us about your experience with this product?

PCF is a very high quality product. The spot checks we carry out from time to time have confirmed that the coating quality has a very high level of precision, with 100% reproducibility.

2. The outstanding feature of SEFAR PCF stencil mesh is that a process which was traditionally carried out downstream - the application of the photo-coating - is now produced industrially in advance. Do you think there are advantages to this approach?

We use PCF in conjunction with RETEX, a new automatic mesh stretcher supplied by the Grünig company: for the first time, this combination gives us an industrial process to manufacture print stencils which can be controlled and reproduced, from start to finish. The advantage is that we are able to supply absolutely uniform quality. In other words, we no longer have any of the quality fluctuations that are inevitably caused by manual processes.

3. The fact that the emulsion is applied industrially ensures that the coating structure is constant. Do you think this has practical benefits for CD printers - and if so, what are they?

The optimised, uniform coating structure means that users always have the same basic conditions for exposure and the stages of work that follow.

Because of this, reproduction quality remains identical from stencil to stencil, if the print machine settings are the same.

100% reproducibility of print orders is now guaranteed, and customers are set up for new print orders within a matter of minutes.

4. Some users claim that the printing results are well above average both for fine halftones and lines. What is your experience on this point?

I can only confirm that view. PCF evidently has better colour resolution than a conventionally produced stencil.

5. Is an Rz value of about 5 possible with tight tolerance?

Yes, because an Rz value below 4 leads to adhesion on the CD, resulting in a blurred appearance of the printed image. An Rz value of more than 7 can lead to a sawtooth effect with line printing.

6. One of the main reasons why SEFAR PCF is so successful is because it permits high print runs. What print run increases have your customers achieved?

Our customers tell us that print runs are up to five times higher than the figures for capillary films. There is no difference between the print run stability of PCF and direct emulsion, but PCF has higher reproduction accuracy and reproducibility.

7. SEFAR PCF makes it possible to cut out some of the process stages. What is your assessment of these savings in practice?

We save time because there is no longer any need to coat the stencil after stretching and gluing it. This enables us to produce more stencils in the same time - and there is the added advantage of process reliability, as I said before.

8. It is very easy to handle SEFAR PCF, except that the stencil material has to be protected against daylight. How do you rate the handling of this product?

Once the premises and the stretching system have been set up, it is no more complicated to process PCF than normal mesh.

9. Further processing of SEFAR PCF requires no chemicals. How do you view this benefit?

We have always aimed to minimise the use of chemicals. PCF fits excellently into this concept, and our customers also view it as a benefit.

10. Stencil reproducibility is usually a very important criterion. What do your customers have to say about this?

They tell us that stencil reproducibility is so good that on a repeat order, they produce the stencils, put them in the printing machine, set the printing parameters and achieve exactly the same results as for the first order.

I'd like to quote one of my CD customers on this point:
"Just put the PCF stencil in the printing machine and forget all about it". Or in other words, all that needs to be done is to fine-tune the printing machine.

11. Cost-effectiveness is another important issue. How do you rate the price-to-performance ratio for SEFAR PCF?

PCF is a quality product, not a cheap one - and if you add up everything that we have already said, you can see that PCF is an attractive product in terms of price. It certainly pays off for our customers.

12. And now one last question: do you see any potential for improvements to SEFAR PCF, and if so, what?

Every product is subject to ongoing development and optimisation. At the moment, PCF is only used in the CD segment. PCF would need to be adapted for other industrial and standardised application areas such as electronics, the packaging industry, label printing, and so on.

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