

Fine and nonetheless stable: PrintForm IS

## Forming fabric impresses customers worldwide

A new class of structure-bound fabrics revolutionizes the market and does justice to two claims in equal measure: running performance and quality. With the PrintForm IS forming fabric and its unique warp ratio of 3:2, Voith Paper has been providing completely new perspectives since the product launch a year ago.

*PrintForm IS suites a wide application field from demanding packaging grades to fine graphical papers.*



The PrintForm IS is ideally used in machines with up to 1,500 m/min. It is used for the production of fine paper as well as demanding packaging paper. Graphic paper such as LWC and ULWC was previously manufactured on fine to medium-fine SSB (sheet support binder) fabrics or double-layer fabrics to ensure non-marking, retention, formation and porosity. Demanding packaging paper was produced on designs that tended to be more robust so as to ensure stability and to meet running time expectations but with lower fiber support. That has fundamentally changed with the use of PrintForm IS. Now it is possible to work on paper quality with the aid of forming fabrics without limitations on the running performance.

**Enthusiastic customers**

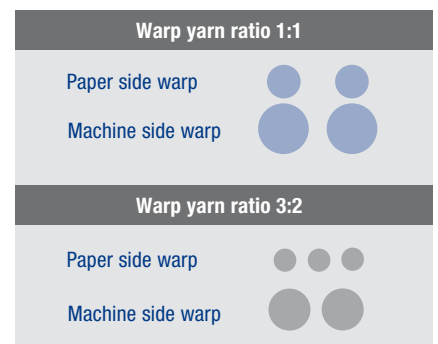
LWC and ULWC paper is produced on the Norske Skog PM 4 in Walsum, Germany. The Voith PM with a DuoFormer CF and a wire width of 8.10 m runs at a speed of 1,350 m/min. By using the

PrintForm IS in the top wire and a fine SSB fabric from Voith Paper in the bottom wire, the profile quality was improved and the surface roughness was reduced. The marking tendency was also noticeably minimized. “We are very satisfied with the use of the PrintForm IS on our machine,” says Andreas Jaeger, Assistant Manager Production on the PM 4 in Walsum.

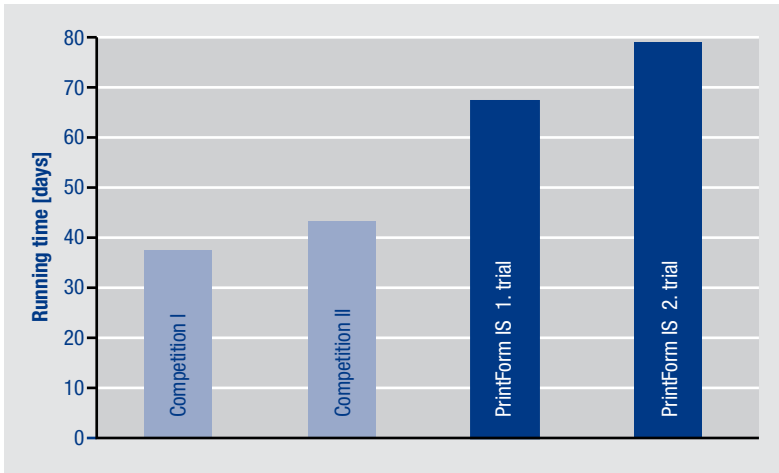
Similarly positive experiences prompted a customer in North America to choose PrintForm IS as its standard clothing. On the BelBaie machine with a wire width of 8.5 m and a speed of 1,200 m/min, wood-free coated and uncoated paper is produced within a base weight range of 75-104 g/m<sup>2</sup>. By using the PrintForm IS, the running time was noticeably increased and the fabric showed outstanding dewatering performance. In comparison to a competitor’s SSB design, PrintForm IS increased the running time from 55 days to 87 days. The downtime and the costs were thus reduced and efficiency increased.

A customer in Asia was able to harness the advantages of the high fiber support. A competitor’s design with a 1:1 warp ratio had been in use on the customer’s BelBaie machine. But the competitor was clearly beaten with the first installation of the PrintForm IS. The high dewatering performance of the PrintForm IS had a positive effect on the energy balance. The fine paper side of the fabric led to better retention, which allowed the customer to reduce the use of retention aid. A clear success with regard to paper quality and cost-efficiency.

Up until now, such results had only been possible with trade-offs in running time expectations for the fabric. The PrintForm IS convinced a customer in North America of the contrary. Due to the addition of abrasive fillers, the customer had been having problems for years with short fabric running times of on average of only 50 days on the DuoFormer D machine for production of newsprint with a wire width of 7.4 m. In September 2009, Voith Paper installed the PrintForm IS



*The new warp ratio of PrintForm IS sets the basement of a unique SSB Design: an optimal combination of runability and paper quality.*



Running time of PrintForm IS is significant higher than comparable products.

**Advantages of PrintForm IS as compared to SSB**

While conventional SSB (sheet support binder) forming fabric concepts with a warp ratio of 1:1 (yarns in machine direction) reach their limits, PrintForm IS offers new possibilities. The special feature is a completely new arrangement of warp yarns to one another. Instead of a 1:1 ratio, the warp yarns are in a paper to machine side ratio of 3:2. Through this combination, the fine top side of the fabric for fiber support can be united with a stable bottom side for better service life and stability (see a detailed article on PrintForm IS in twogether, issue 29, page 51-53).

forming fabric for the first time in the bottom wire. A record running time of 67 days was thus achieved.

Immediately thereafter, the second installation was done at this position. The result was even better: a running time of clearly more than 80 days. Cost savings came about due to lower fabric consumption and fewer downtimes. For this reason and also with improved formation, the customer chose Voith Paper as its standard supplier.

High demands for quality and running performance also moved a

customer in Finland to test the PrintForm IS fabric on a hybrid former. Book paper in a base weight range of 60-90 g/m<sup>2</sup> is produced there at a speed of 1,380 m/min. The high dewatering performance, good formation and higher running time prompted the customer to rely on the PrintForm IS design. The clothing times and downtimes were noticeably reduced. High fabric stability ensures good profiles and outstanding running characteristics. Due to the high dewatering performance of the fabric, the power could also be reduced.

**On focus: PrintForm IS**

- ProEnvironment
- ProRunability
- ProQuality
- ProSpeed

Section: former

Paper grade: graphic paper, high quality board & packaging paper

**Contact**



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*“We are very satisfied by using the PrintForm IS.”*

*Andreas Jaeger, Assistant Manager Production, Norske Skog Walsum*

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