



MultiForm HC and DuoFormer Base perfectly fit together.

Forming fabric MultiForm HC, the new standard for demanding positions

Producing Board and Packaging on a new level

The new H-Series product line would not have been complete without the HC design range. MultiForm HC is a coarse SSB weft bound design, featuring high dewatering capacity, low marking and predictable life, fitting today's application requirements for coarse forming fabric demanding board and packaging positions.

The MultiForm HC is the coarsest member out of the recently developed H-Series. This design is especially created to fit Voith Paper's DuoFormer Base bottom positions. In addition, the MultiForm HC has a much wider field of application. It is suited for the production of middle or filler ply of multi-board and under ply of white top liner, test liner, kraft liner and grey board.

Forming fabric requirements

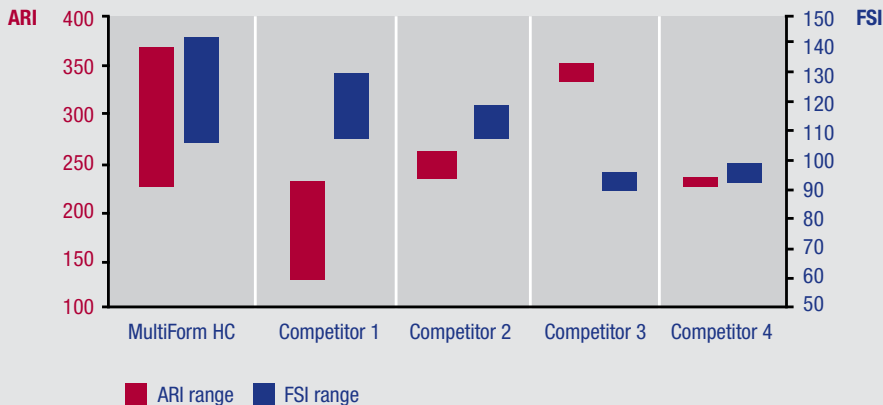
Typically, forming fabric requirements in relation to the above mentioned application fields are high dewatering capacity, good retention, homogenous

formation, low marking, high strength values, clean running and predictable life.

High forming fabric dewatering capacity is required as often raw material with high SR values are applied or in gap-former technology huge amounts of water need to be removed in a short time span. At the same time, high mechanical retention without the use of chemical additives is preferred, even when dewatering takes place under aggressive circumstances. The forming fabric needs to be stiff and stable, but at the same time be able to pass on counter blade

activity, to obtain a good profile and a homogeneously formed sheet. For example, in the case of multiply board, this might also enable a reduction of under-top and top layer grammages. Additionally, it is beneficial not only to get high amounts of fines on the surface to get high surface strength, but also high ply bonds between sheets.

From the point of view of machine productivity, clean running is a very important issue. Flat forming fabric edges, low water spraying and fiber bleeding or fiber carrying will keep the machine environment clean and



FSI (Fiber Support Index) and ARI (Abrasions Index) in comparison.

reduce the risk of breaks. Good and predictable running times enable long production runs, shorter and less machine stops.

MultiForm HC Development

MultiForm HC has been developed to address all of the mentioned points. Additionally, taken into account have been the potential decrease in raw material quality and higher quality demand of the customers of board and packaging producers. A further objective is the desire to save costs by producing lighter grades with the same strength properties. The outcome is the SSB technology-based MultiForm HC (SSB = Sheet Support Binder), combining, for example, a high Fiber Support Index of 142 and an Abrasion Index of 330 within one product. In comparison, out in the market there are hardly any products within this segment even reaching one of these two numbers!

Test runs at VPM 5 in Ravensburg

MultiForm HC has been thoroughly examined on VPM 5, Ravensburg, Ger-

many, our DuoFormer Base trial machine. This way, new forming concepts can be tested in a non-production environment and later be transferred, at low risk, to real production machines. Trial runs with MultiForm HC were made in comparison with MultiForm V – a warp bound SSB design, and MultiForm A – a high shed Extra Weft Added design. The new MultiForm HC showed higher initial dewatering, higher mechanical retention, lower marking and smoother surfaces. Furthermore, the MultiForm HC ran very clean.

Field results

Runs on production machines confirm the test results. In general, improved formation is reported as well as lowered retention aid consumption. At Julius Schulte Söhne PM 3, Germany, the production of core board was clearly improved by upgrading from a triple weft fabric to MultiForm HC. The customer reported that he was able to increase machine speed and production output as well as improving the relevant paper parameters and the dewatering capacity. Fabric life was 110 days, about 15% more than previously

achieved. In Asia, MultiForm HC was on the gap-former at a record start-up, producing the first paper at a speed of 1210 m/min. According to the customer, the target dry content and sheet quality were achieved. Based on the apparent features, MultiForm HC is the new standard for coarse forming fabric demanding positions in board and packaging. Feedback from customers of different countries is very positive, showing a bright future for MultiForm HC.

Infobox

Julius Schulte Söhne PM 3, Germany
 Paper grade: Coreboard, Speciality paper /
 Cardboard packaging
 Basis weight: 140- 650 g/m²
 Former: Fourdrinier with top dewatering unit

Customer Comment



Dirk Nidel
 Production Manager at
 Julius Schulte Söhne

“We have established that MultiForm HC can be used for the whole range of our products. Increase in machine speed and production were two results we were able to achieve, moreover paper quality improved. MultiForm HC has become standard on PM 3 and now, more recently, also on our PM 2.”

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