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## Better performance with a new ceramic press roll coating

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In conventional press concepts the center press roll, no matter if solid bulk or deflection controlled, is still called the “heart” of the paper machine. On that “heart” the paper sheet touches a roll surface for the first time in the machine and will be mechanically dewatered by the nip load of one or more counter rolls. After this pressing the sheet should be able to be pulled off from the roll surface easily, i.e. without stretching it too much. Here, the material and quality of the roll coating are most important and they should remain constant as long as possible over the production period.

Hamburger Containerboard produces at Pitten, Lower Austria, on their PM3 and PM4 a large spectrum of uncoated test liner, top layer, box board and platter paper. In total, about 450.000 t with a grammage of 120 – 200 g/mm<sup>2</sup> leave that site per year.

Especially the high number of varying product types, and thus the adjustment to be refitted numerous times in a short period, in combination with varying influences from the raw material and helpful additives, make the production process sensitive, also in the press. At the shoe press roll of the PM4 it was noticed that the ceramic cover, which worked fine formerly, got rougher much sooner with the increasing variety of paper types, resulting in a worse sheet release. Additionally, in case of a break, the paper did not run into the couch pit, but, depending on the grade, “Jumped” off the roll surface in the direction of the dryer section, which also caused further problems.

Voith Paper’s solution, a combination of the new roll cover TerraSpeed together with the coated doctor blades SkyTerraS, which contains an adjusted bevel, resulted in an intensive stabilizing of the production process and, thus, a significant improvement of the overall performance over a longer time period. Details on this improvement will be discussed in the presentation.

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