

EXCELPLUS Series

Increases Your Productivity in Packaging Paper

SMS Corporation



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for Increasing Your Productivity in Packaging Paper

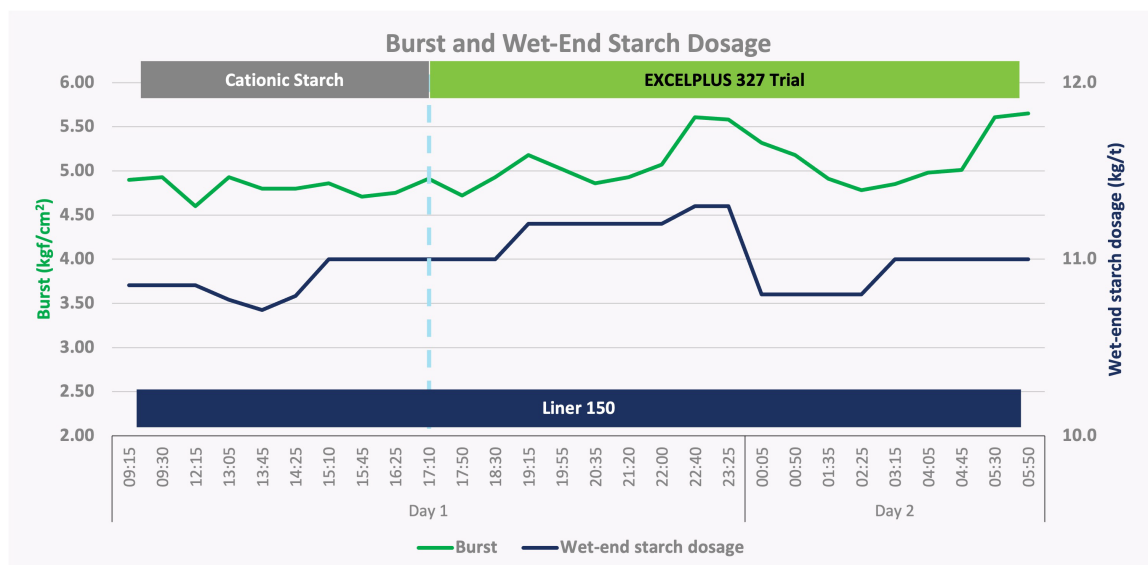
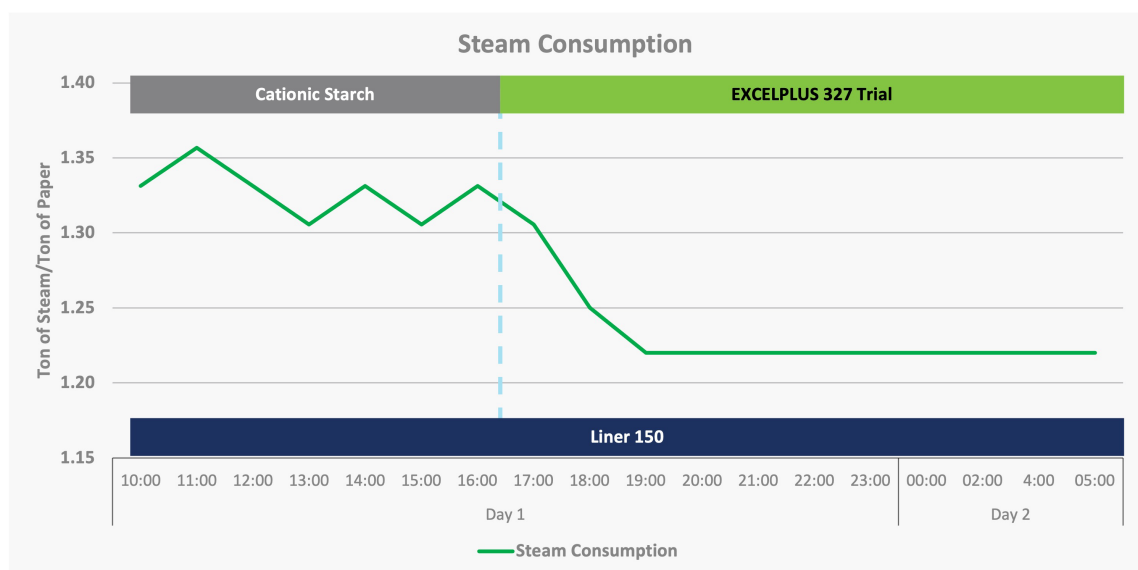
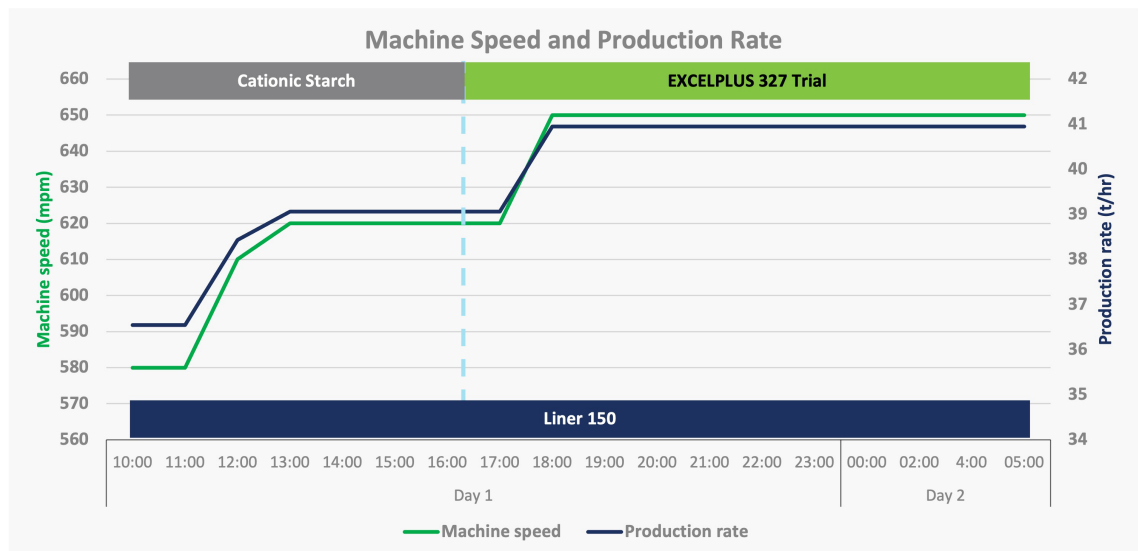
Change to Gain More

Increasing productivity has always been the greatest challenge but necessary for paper manufacturers. **SMS Corporation** successfully paves a new way for the packaging paper industry to overcome the challenge and become more competitive. "**EXCELPLUS 327**", an innovative amphoteric biopolymer is a new technology to replace the conventional cationic starch for better overall performances. Several case studies demonstrate that changing to **EXCELPLUS** results in higher production capacity and cost-effectiveness

See the case below how **EXCELPLUS 327** can boost up machine speed for the most thriving productivity

| | |
|----------------------------|--|
| Paper type: | Kraft liner |
| Speed: | 400-600 mpm |
| Basis weight: | 125-250 g/m ² |
| Furnish: | Virgin unbleached kraft, and Local OCC |
| Wet-endchemical: | Alum |
| Internal sizing: | Rosin |
| Customer objective: | To increase machine speed and productivity |

SMS solution: **EXCELPLUS 327** at a dosage of 11 kg/ton.
Machine speed is increased by 5%, resulting in more paper production by 2 ton/hr. Moreover, steam consumption per hour is decreased by 4% while maintaining the usual machine-runability.



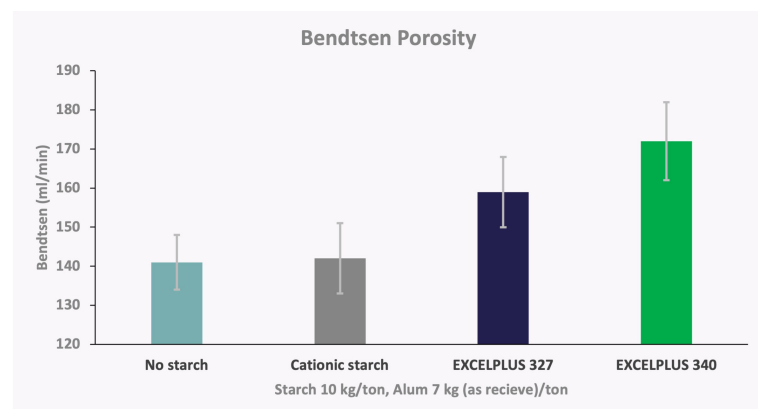
Conclusion:

EXCELPLUS 327 significantly increases machine speed while maintaining stable machine runability. Productivity is improved by 5% compared to conventional cationic starch. This achievement has helped paper mills to become more productive, more efficient, and thus more profitable with **EXCELPLUS 327**.

Enhance Porosity to Perfect Your Sack Kraft with EXCELPLUS Series

Add for Fast Filling

Porosity is one of the most crucial properties for the good performance of sack kraft paper. Sack kraft manufacturers need to keep up with the growing demands of fast and dust-free filling technology. The porosity in sack kraft must be sufficient to facilitate efficient deaeration. To achieve such a requirement, **SMS Corporation** introduces **EXCELPLUS Series** whose function is to lower the air resistance in sack kraft paper. The results shown below demonstrates that **EXCELPLUS** outperforms traditional cationic starch in terms of porosity.



Lab test

| | |
|--------------------------------|---|
| Furnish: | Virgin long fiber |
| Freeness: | 430 CSF |
| Basis weight: | 80 g/m ² |
| Wet-end chemical: | Alum |
| Internal sizing: | Rosin |
| Experimental objective: | To study the effect of wet-end starch on porosity |

Results:

EXCELPLUS 327 and **EXCELPLUS 340** increase paper porosity by 10 and 20% respectively. On the contrary, normal cationic starch does not generate sufficient porosity to the hand sheets. All the starch samples were added at 10 kg/ton and it was necessary to have enough alum in the wet-end system

Conclusion:

EXCELPLUS 327 and **EXCELPLUS 340** proficiently increases porosity by 10% and 20%, respectively when compared to paper manufactured by traditional cationic starch. The demand of high-porosity sack kraft can be met by the addition of **EXCELPLUS Series**, enabling efficient deaeration and perfect balance between strength and porosity for dust-free & fast filling process.

