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## **TT EXCELLE® CARD SYSTEM : A REVOLUTION FOR THE NONWOVEN WIPES PRODUCERS AND NEW PERSPECTIVES FOR THE WHOLE DRY LAID NONWOVEN INDUSTRY**

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NSC nonwoven is releasing its latest innovation : the "T.T Excelle® card"

Before this innovation, for the inline carding process, as production lines increase their linear speed, it is a common thing to see a progressive drop in the physical strength properties of the final wipe fabric. This loss of strength always comes with a more unbalanced MD/CD strength ratio (Machine Direction as opposed to Cross Direction) and consequently quality properties become very limited when wipes are produced at high speed.

The wipe market application requirements, and the development of high speed converting equipment, with more demanding physical properties, means requests from the roll good producers a minimum CD value which are out of reach when running at speed over 170 to 200 m/min. The few high speed lines which are running faster are dedicated to niche markets where wipe fabrics accept MD/CD values in excess of 5/1 MD/CD ratio and CD strength values well under 20 N/5 cm.

The T.T. Excelle® card technology is a revolution in its performance and reliability. If only one performance must be remembered, is that it provides the ability to always obtain MD/CD strength ratios under 3/1, even at production speeds in excess of 250 m/min. Extensive trials have been done on the NSC nonwoven pilot line which is now available to the industry for evaluation tests.

Furthermore, the T.T. Excelle® card technology has shown improved Bonding Index values on all tests done so far. This is increasingly true as the production speed increases, in combination with a gain in CD strength value of up to 80% as the production speed increases. The fact behind this performance is that the card design works the fibres more gently than other conventional cards

and low draft during the process preserves the web structure. Less fibres breakage also means less maintenance and higher productivity.

This good news open new market opportunities to the wipes industry but also to many nonwoven industries for all kinds of applications.

The hygiene industry is one of them with, ADL (Aquisition layers). The "T.T" Excelle® card technology generates extra bulkiness when compared with conventional or other carding technologies.

With such fabric characteristics, the market can expect to see lighter nonwoven fabrics to become available, with extra strength performances and without losing on current bulkiness standards. Logically, the "T.T" Excelle® card technology will revolutionize the economics of making disposable nonwoven, starting by generating added value to product portfolios and improving the nonwoven producers profitability.

The "T.T" Excelle® card technology opens new opportunities to many other nonwoven processes, including durable end uses, for technical products, using high tech fibres or standard synthetic fibres, and why not use the T.T Excelle® card to feed a crosslapper... The "T.T" Excelle® card system is visible in the NSC nonwoven showroom, where it is possible, for all nonwoven producers to run their own fibres, with their own parameters. For further information and to test the "T.T" Excelle® card system, you are welcome to send a message at [contact@nsc-nonwoven.com](mailto:contact@nsc-nonwoven.com).

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