Henkel's Lioscan application weight measurement system

Assuring quality "on the run"

Düsseldorf – Henkel is introducing a new inline, contactless and non-destructive coating weight measurement system in flexible laminate production: Lioscan. This system has been designed for reactive polyurethane (PUR) based adhesives systems and coatings. Lioscan can be retrofit in almost any laminating machine. It significantly boosts the customer's process reliability and production efficiency, while improving quality and reducing material waste at the same time.

Flexible laminates are highly specialized products, combining two or more film/foil layers with different characteristics to bring out the desired features for each individual packaging solution: From human food, such as snacks, confectionary, coffee or fresh fruits, to pet food, pharmaceuticals and personal care products. To ensure the laminates' high performance, a thorough quality management process is highly recommendable. Henkel's Lioscan allows customers to do this inline to save both time and material in the process.

Bringing quality control to the next level

The introduction of Lioscan completely changes the work routine for quality control: Before, operators either had to stop the machine in order to check the quality of the laminate currently being produced or they had to wait until the end of the converting process of an entire reel before being able to measure the coating weight. Samples from different points of the film then had to be cut out and carefully delaminated in the laboratory to check if the adhesive had been applied correctly. If the result did not meet the customers' quality standards, the entire reel would have to be disposed of and its production repeated. And even if the quality check was passed: Precious operation time had to be sacrificed in the quality control process.

With Lioscan, one brief check of the system's touch screen is enough to instantly inform the operator about the actual coating weight across the full width of the film –

without stopping the machine. The system immediately detects any deviation from the specified coating weight and sets off an acoustic and visual alarm. Thus, it minimizes the risk of any potential claims.

The technology behind Lioscan's non-destructive, instant measurement

Lioscan is equipped with an automatically oscillating infrared sensor moving along the film sideways without any contact to the material. Its sensor detects the Isocyanate content, allowing for highest coating weight measurement precision at highest machine speeds. The system is suitable for measuring adhesive coating weights on various film types, such as transparent, printed or metallized films and aluminum of various thicknesses.

Lioscan is in use across multiple regions and has proven to be highly intuitive and can be retrofit into almost all laminating machines. "We want to provide our customers with the ability to constantly monitor the coating weight in real time and at unprecedented accuracy. Lioscan leads to a significant increase of our customer's efficiency by reducing machine downtimes and material waste", as Andreas Wenzlaff, Technical Key Account Manager at Henkel summarizes. Lioscan comes with a comprehensive Technical Service offering that not only includes the installation of the system but also on-site user trainings and technical on-site support for the optimal calibration of the system.

Combining excellence in quality with waste reduction

"Currently, Henkel is the only adhesive supplier offering such a system that provides our customers with an integrated solution from one source at the mentioned accuracy level," Andreas Wenzlaff continues. And he points to the sustainability benefits: "One percent waste avoidance of the global flexible packaging industry output equals a film the length of more than 70 times around the planet. Thus, beyond operational excellence, Lioscan also helps our clients to meet their sustainability goals by significantly reducing material waste."

About Henkel
Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty

Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2016, Henkel reported sales of 18.7 billion euros, adjusted operating profit of 3.2 billion euros. Its three top brands, Persil (detergent), Schwarzkopf (hair care) and Loctite (adhesive) generated more than 6 billion euros in combined sales. Henkel employs more than 50,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel's preferred shares are listed in the German stock index DAX. For more information, please visit www.henkel.com

Photo material is available at http://www.henkel.com/press

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Henkel AG & Co. KGaA

The following material is available:

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