

## **INEOS Films Improves Quality and Productivity for their Two New Calendering Lines with the Thermo Scientific 21Plus!**

*"We selected the Thermo Scientific web gauging solution for our calendering lines based on good history and a successful relationship with them. Their expertise in measurement and control of calendered films combined with their application and service support made it an obvious choice for us."*

INEOS Films Inc., Delaware City, Delaware



**INEOS Films,  
Delaware City, DE**



**Thermo Scientific MARKIII Scanner  
on the Pharmaceutical Calender Line**



**The Operator Control Panel**

### **INEOS Films**

INEOS Films is one of the leading global manufacturers of rigid plastic films. It is comprised of 4 businesses units: pharmaceutical, cards, packaging and specialty products with each one dedicated to the special requirements of its markets. INEOS Film's production network includes nine sites worldwide with sales exceeding 155,000 metric tons.

INEOS Films' new factory in Delaware City, Delaware, USA, produces rigid films for pharmaceutical blister packaging, credit and contact-less cards, as well as for shrink film applications in the food and beverage industry.

INEOS Films guarantees the highest quality of films as a result of the careful selection of raw materials, consistency of formulations and production using the most modern, computer-controlled calendering lines.

### **Selecting the Thermo Scientific 21Plus! Web Gauging Systems**

The Delaware plant selected two Thermo Scientific 21Plus! web gauging systems for each of their new calendering lines. These were for the manufacture of specialty pharmaceutical and card films respectively.

The 21Plus! system on the pharmaceutical film calendering line consists of a 2540 mm wide MarkIII Frame, KR-85,1250 mCi slot-geometry basis weight sensor, interactive operator console and three zone control with screwdown and rollbend functionality. The 21Plus! system on the card film calendering line is comparable to the pharmaceutical line except for the application of a 2236 mm wide L-220 Frame.

In addition to providing quality measurement and control of the films, the 21Plus! system is also interfaced with a surface inspection system for greater process visibility and quality insight.

### **Web Gauging Benefits and Results**

The benefits achieved with the systems have been:

- Valuable quality and productivity process commissioning tool for both calendering lines
- Faster start-up and quality change times
- Reduced scrap
- Greater process and quality insight
- Accurate, timely quality information including statistical process control (SPC) charting
- Timely on-line quality data and reports for proof of compliance

## **Continuous Measurement at INEOS Improves Quality and Increases Productivity**

### **Improved Quality and Productivity**

INEOS Films is ISO9001 and ISO2000 certified. Product quality and quality assurance programs are critical to their continued success.

The 21Plus! system provides continuous on-line measurement and control of INEOS products. The operator's attention is swiftly drawn to any cross direction thickness deviation, highlighted in red, on a high resolution, 2000 point profile display. The three-zone control acts immediately to attenuate process upsets in order to maintain full width product quality.

The Thermo Scientific 21Plus! Vari-Scan function eliminates high-frequency control hysteresis caused by short-term machine direction variations as a result of calendar roll run-out. The result is the right control action every time, keeping the quality within specification.

INEOS realized productivity gains by eliminating slowdowns during start-ups and product changeover due to the combination of fast measurement and responsive controls. Reduced scrap and high speed production at higher quality levels have helped contribute to profits.

### **Intuitive Operator Displays Provide Valuable Process and Product Insight**

The extensive portfolio of 21Plus! Flex high-resolution graphic displays is a valuable tool for the operators to help them understand both the process dynamics and quality performance. Armed with the system's process diagnostic tools, the operators are able to see cause and effect and take immediate corrective actions as necessary.

### **A Reliable System with Low Cost of Ownership**

The installation and commissioning of the two new calendering lines was a complete success. Our service and application staff were very supportive and flexible around INEOS Films' schedule. Furthermore, both systems have since been robust and reliable.

**Visit our website at [www.thermo.com/webgauging](http://www.thermo.com/webgauging)  
or contact your local Thermo Fisher account manager.**

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