



Increased Line Speed and Improved Quality Using Heraeus Infrared Drying

Increased line speed and improved adhesion quality are the two main benefits arising from the installation of a Heraeus Noblelight infrared drying system at the Renfrewshire factory of Smith & McLaurin. The system was easily retrofitted after successful on-site trials.

Smith and McLaurin Ltd, is a leading manufacturer and global supplier of self-adhesive label, ticket and tag materials. Based in Johnstone, Renfrewshire, the company sells material in roll form to printers and converters who produce finished label ticket and tag products for a wide variety of end users, including, supermarkets, pharmacy chains, logistics companies and food manufacturers.

An important part of the production process is the application of a silicon backing to the label strips. The silicone is applied with adhesive to the label strip backing and the adhesive is dried and cured. This had previously been carried out by a 20 year old infrared and warm air oven system but increased demand for the product meant that there was a necessity to increase the line speed and the existing infrared oven was incapable of meeting the new requirements.

Having had previous success with a carbon infrared (CIR) system on another line, Smith & McLaurin engineers contacted Heraeus and a 192 kW CIR oven was retrofitted immediately before the existing warm air oven. The CIR system consists of two 96 kW modules, fitted over the line, each with 15 medium wave emitters in 10 controllable zones, allowing the power to be increased from zero to 192 kW in ten equal steps to meet specific production requirements.

“The success of this second infrared installation further increases our confidence in the technology,” comments Iain McCourty, Engineering manager at the Renfrewshire site. “The ability of the Carbon medium wave system to provide heat instantaneously and uniformly through the applied coatings has ensured that we can now increase line speed. At the same time, the controllability of the system means that we are obtaining a much more reliable and hence better quality, adhesive cure.”



Features

- easy retrofitting
- drying and curing of adhesives
- quick response times
- controllability for uniform heating
- increase of line speed

Technical Data

- CIR oven with 192kW
- system consists of two modules, 96kW each
- 15 medium wave Carbon heaters in each module
- 10 individual control zones
- from zero to 192 kW in 10 equal steps

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