COMPANY PROFILE: AVERY DENNISON



GLOBAL R&D AND TECHNICAL SUPPORT

As labelling technology continues to develop, pharmaceutical labels are making an increasingly significant contribution to operational efficiencies, and to security and compliance. Smarter and more dependable labelling solutions are important in often safety-critical clinical environments.

Developing and delivering such solutions requires an in-depth understanding of segment needs, along with diverse and substantial manufacturing resources.

The Avery Dennison Label and Packaging Materials division today works with more than 10,000 label converters, brand owners and retailers. It has helped to transform operations in a wide range of differing segments, including key innovations within medical applications. Worldwide, Avery Dennison operates in more than 50 countries, with 25,000 employees and revenues of US\$6 billion (£4.9 billion).

MEDICAL EXCELLENCE

Avery Dennison specialised pharma materials are widely used to create blood bag labels, security and tracking solutions, drug delivery device labels and functional labelling components. Among the core benefits are assured availability and compliance, and high-performance pharma adhesives including hot-melt, solvent and emulsion options.

Our technologies allow the most challenging applications to be delivered with confidence. These include small containers such as syringes (Figure 1) with diameters down to 7 mm; challenging substrates (including glass and plastics); and thin-walled low-density polyethylene (LDPE) containers where low migration is essential

Examples of Avery Dennison pharmaceutical solutions include:

- S717P adhesive for small diameter and low surface-energy substrates (especially cyclo olefin polymer (COP) and cyclo olefin copolymer COC), designed to reduce edge lift. This adhesive is US FDA approved and cytotoxicity tested in accordance with ISO10993-5 standards, enabling accelerated re-certification
- S692NP adhesive, designed to meet the low migration challenge. Applications using S692NP are growing as the use of plastic containers increases
- TT Sensor Plus[™] intelligent labels; using an NFC microchip that monitors temperature over time during the transit of sensitive drugs.

RESEARCH AND DEVELOPMENT

Intelligent labelling is a rapidly emerging medical application area, using technologies where Avery Dennison is already an important global player. Such technologies are already showing enormous promise that extends well beyond conventional bulk logistics applications. For example, hospitals are beginning to explore the use of RFID labels to distribute drugs to individual patients, in order to reduce the likelihood of medication errors.

There is also great interest in the potential to improve patient adherence for self-administered drugs. A chronic condition such as diabetes can be treated



Figure 1: Avery Dennison labelling technology allows the most challenging applications, including small containers such as syringes with diameters down to 7 mm; challenging substrates; and thin-walled LDPE containers where low migration is essential.

"S717P adhesive for small diameter and low surface-energy substrates (especially COP and COC) is designed to reduce edge lift. This adhesive is US FDA approved and cytotoxicity tested in accordance with ISO10993-5 standards, enabling accelerated re-certification." Avery Dennison Materials Group Europe

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"A chronic condition can be treated more effectively if an autoinjector device can communicate with a mobile device via NFC or bluetooth.

Smart labels are an easy way to achieve this kind of added functionality"

more effectively if an auto-injector device can communicate with a mobile device via NFC or bluetooth, alerting the patient to a missed injection, or an injection that is due shortly. Smart labels are an easy way to achieve this kind of added functionality.

Bespoke development of solutions such as these is a core strength of Avery Dennison, and advanced tamper-evident/ security labelling solutions can also be

created for specific application needs, with full support from Avery Dennison technical specialists.

Innovation has been at the heart of Avery Dennison ever since the company's founder, Stan Avery, created and patented the world's first self-adhesive die-cut labelling machine in 1935.

Today, more than 450 engineers and scientists work in a dozen Avery Dennison research laboratories across the globe – located in Centers of Technology and Innovation in the US, the Netherlands, Brazil, Belgium, China and India. Continual development is designed to meet a huge range of end-user needs, with many strands of research into next generation technological breakthroughs and platforms that anticipate future trends.

A FOCUS ON COMPLIANCE

Compliance is critically important for medical applications. Issues include not only performance of the packaging, such as avoiding contamination from migration, but also anti-counterfeiting measures and complying with the EU Directive on Falsified Medicines (2011/62/EU).

Meeting such a broad range of criteria requires much more than a product portfolio alone, and Avery Dennison maintains a dedicated compliance team which is ready to help manufacturers and healthcare segment suppliers arrive quickly at an appropriate solution. Products, documentation and full technical support are all readily available.

OUR COMMITMENT, YOUR **AD**VANTAGE

Avery Dennison teams across the globe are focussed on creating new products and services, and supporting all those working in the medical segment as they grow their business. Whether you are looking for the most suitable product, technical assistance or even in-house product t raining, we are committed to sharing our knowledge and expertise. Avery Dennison will work alongside you to arrive at the required result.





A labelling solution for demanding pharma applications



THE PHARMA LABELLING CHALLENGE

Label 'lift' is a major challenge for pharma applications such as plastic and treated glass syringes, and vials. Low surfaces energy and/or small container diameters place enormous demands on the label adhesive – and changes to manufacturing designed to raise productivity can mean that an existing labelling solution no longer performs adequately.

As a pharma labelling solution, the adhesive S717P offers excellent performance on difficult containers and a rapid recertification process. It is also a stable product with formal change management control. Indeed S717P is part of the Pharma (P for Pharma) dedicated range that offers a robust change management control to make sure that components do not change and notification times are in place if a change has to be made.