



TabWrap technology is a high-speed continuous process for wrapping compressed tablets in a soluble polymer film.

# Value for brands and patients

Pharmaceutical products need to be immediately effective: for consumers and for manufacturers requiring brand protection. Polymer technology provides a simple anti-counterfeiting system that has instant absorption capabilities.

**M**eldex International is one of the leading companies in soluble polymer science using its patented XGel™ polymer technology. The company works with partners to develop and create unique opportunities to promote key brand values with simple but effective manufacturing concepts. These technologies focus on patient-delivering benefits, which include speed of onset of action and ease of swallowing.

Within its portfolio of enabling technologies, Meldex has a unique patented system that allows the dry coating of a compressed tablet core called TabWrap™ technology. It is a dry-coated system suitable for:

- Soft friable cores that are difficult to coat using traditional technologies
- Formulations that are difficult to compress into hard tablet cores
- Molecules and excipients that may be susceptible to moisture and solvents

This technology has created:

- FastWrap – a quick disintegration dry-coated tablet
- EntWrap – an enteric dry-coating system
- XLWrap – a modified release core with novel coating

FastWrap is a modified tablet core that is dry-film coated using the TabWrap patented process. It is designed to increase the rate of disintegration and dissolution of normal tablet cores. In order to increase the disintegration rates, modified super disintegrants can be used to break up the tablet more rapidly. These excipients usually work either by swelling or by capillary action when in contact with water. However, such tablets if uncoated are still difficult to swallow and will remain within the oesophagus, causing discomfort to the user. Due to the moisture sensitivity, these tablet cores are difficult to coat using standard coating techniques.

## Helping a brand

Consumers want products to be instantly effective, so the ability to speed up dissolution has a significant beneficial marketing effect. Therefore, it needs to be useful in areas such as coughs, colds and analgesia. FastWrap has a soft core with high levels of super-disintegrants and dissolution aids. These products make the drug available for absorption more quickly than traditional tablets.

Dissolution studies have been carried out to US Pharmacopoeia monograph standards at Meldex

International's development site in Cambridge, UK. The data generated from the dissolution study shows that FastWrap is comparable to brand-leading rapid release systems. Data using ibuprofen has seen a dramatic increase in the overall solubility of the drug.

## Anti-counterfeiting

There is no simple, single strategy to prevent determined counterfeiters. Significant resources have been placed into packaging designs and formulations by the pharmaceutical industry, including holograms, novel foils and even radio tracking. However, a simple tablet is easily copied.

With new, recently developed films, Meldex is able to create novel dry-coated tablet cores in single, dual or triple colours. With the use of novel inks and laser systems working with the film, the TabWrap product can be highly distinguished compared with standard tablets. Any attempt to remove the printing will result in the breakdown of the coating.

## Oral delivery

Meldex also has a range of technologies for patients who have swallowing difficulties. Meltums™ is a new enabling technology using the company's proprietary XGel technology.

The technology is a unique lozenge encapsulated with XGel film. With the use of Meldex SoluPol systems, Meltums is able to provide a significantly higher drug loading, typically up to several hundred milligrams. It also provides a unit dose delivery with enhanced taste masking. This technology allows the incorporation of sustained release granules.

Soluleaves™ technology is used to produce a range of oral delivery films that can incorporate active ingredients, colours and flavours. This melt-in-the-mouth film uses XGel polymer technologies, resulting in the film strip dissolving rapidly in contact with saliva. This allows a quick release of active ingredients with a rapid onset of action via buccal absorption. Soluleaves would result in a faster effect than swallowing tablets as well as being useful to patients with swallowing difficulties. **WPF**

## Company profile

Meldex International's goal is the continued development of a patient-focused, integrated, international speciality pharmaceutical and healthcare business that develops, markets and distributes medicines and healthcare products incorporating its innovative XGel. For more information, visit: [www.meldexinternational.com](http://www.meldexinternational.com).