

The Basics of Paper-making

Part 3: Winding and direct sealing

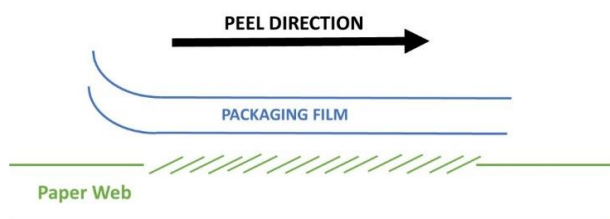
Paper-making uses some unusual terms that aren't common in general flexible packaging. This blog is part of a series that will make up a quick reference guide to help you understand the basics of paper-making. **In part three of our series, we'll go through the importance of winding direction and how it affects direct sealing.**

When we supply paper to the medical packaging market we always specify the unwind direction - why is this?

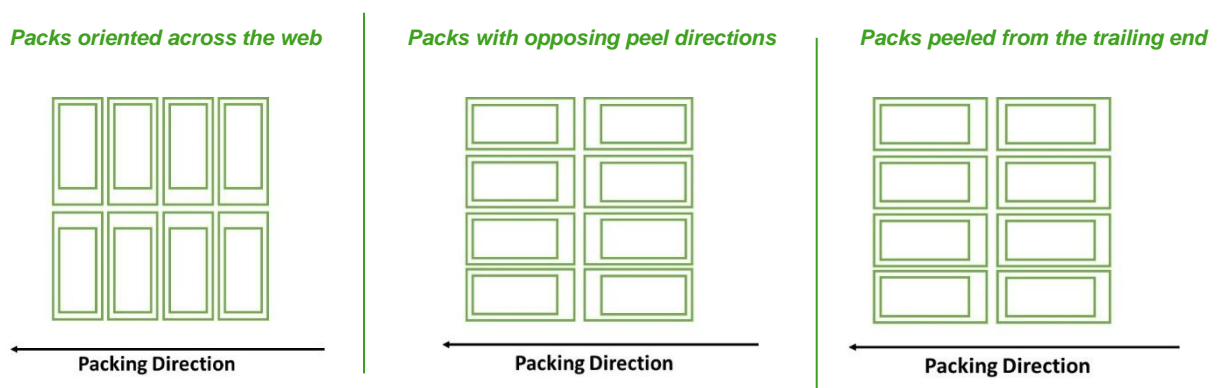
Paper is manufactured at high speed from a very, very dilute solution of paper fibres. The process tends to orientate the fibres in the machine direction and also, very slightly angled up from the horizontal.



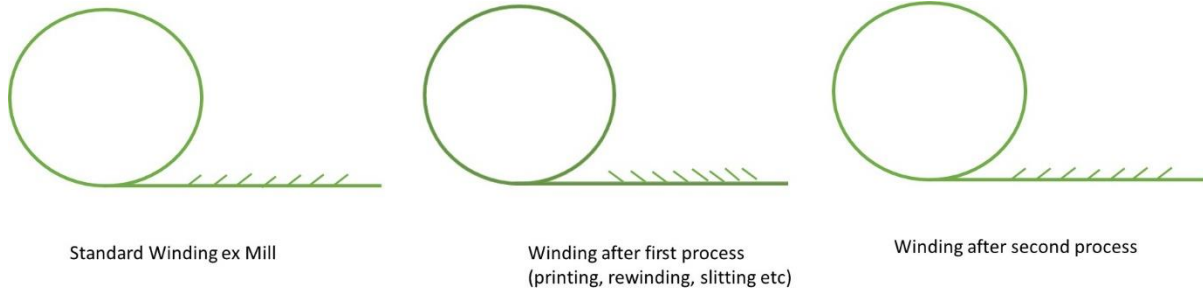
The goal of direct sealing is to produce a peel with the minimum possible fibre lift. Most thermoform fill seal machines pack product in-line with the peel tab leading. To get the cleanest peel, the paper fibres need to be angled away from the peel tab.



Because of this, it is advisable to avoid certain put ups if the peel is to be as clean as possible. Here are some formats that can cause issues:



The standard un-wind we supply is intended to suit processes where the paper is printed before going onto the packaging line, so the reel is produced with the minimum peel in the direction of the un-wind.



It's good to remember that every time the paper is processed after this (eg rewinding or slitting), the peel direction will be reversed. So, if initial trials are performed on unprinted paper but actual production will use printed paper, take care with the peel direction.

High Performance Medical Papers

At BillerudKorsnäs we manufacture modern medical packaging papers which are surface-treated (SteriKraft® PeelClean and SteriKraft® Protect Range), or manufactured with a top former (SteriKraft® G & D range), which almost entirely eliminates issues with peel direction. But it still pays to be aware of this phenomenon.

BillerudKorsnäs has a wealth of expertise and experience in paper packaging for medical devices. A great way to stay up-to-date on everything from paper-making basics to the latest developments in the industry is to sign up to receive blog updates and info about upcoming webinars. You can sign up on our website!



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