

## Paper manufacturing

### 3-PLY DESIGN

Kallima's 3-ply design sandwiches a layer of high-yield pulp between top and bottom layers of bleached chemical pulp.

### STOCK PREPARATION

In the stock preparation area, a water-pulp slurry – or **stock** – is made by mixing various pulp grades with specific proportions of chemical additives, to achieve **desired paper properties**.

### 3-PLY MACHINE

Kallima Coated Cover is made on a 690-foot-long Tampella Fourdrinier machine.

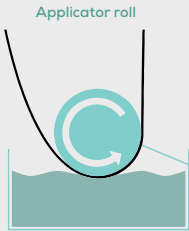
The stock is diluted to 0.5% consistency (99.5% water) before entering the first section of the machine, called the **headbox**.

The pulp mixture reaches the Fourdrinier's **wire**, a continuous screen used for draining the water out. There is one headbox and Fourdrinier per ply produced. A single web is formed before entering the **press section** at a consistency of 25%.

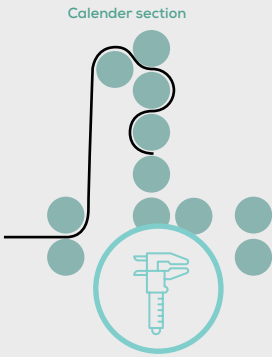
When it leaves the press section, the sheet is at 48% consistency (52% water).

The web passes over a series of cast-iron cylinders, called **dryers**, to remove moisture through evaporation.

The web leaves the dryer section for the coating stage at a consistency of 92% to 96%.



Applicator roll



Calender section



## COATING KITCHEN

**Coating** is made by mixing pigments, binders and additives. Each coating formulation is designed for specific end uses.

Applicator rolls apply coating layers to both sides of the web.

## FINISHING

At the finishing stage, heated calender rolls squeeze the sheet to achieve a smooth, even and glossy surface.

**Calendering** is also used to control **caliper**, or thickness, of the coated board.

The board is then reeled onto a spool and sent to the winder, where it is cut to specific roll sizes. Rolls are wrapped in moisture-repellent packaging, labeled and shipped.

## QUALITY CONTROL

Our attention to Quality Control ensures a high degree of consistency. Paper that fails any of the tests performed by highly trained technicians in a state-of-the-art laboratory is rejected.

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