



POWERATE™

A new range of
multifunctional mineral solutions
to improve the runnability of
Board & Paper machines

Attributes:

- Fibre savings
- Lower energy consumption
- Cleaner machinery
- Improved machine runnability
& productivity
- Sustainable solution



IMERYS

POWERATE™ solutions: a new range of minerals to improve machine runnability in the production of virgin and recycled fibre substrates

Key benefits



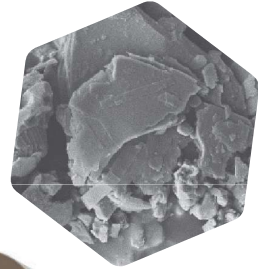
- ✓ Optimised production costs by replacing part of the fibres
- ✓ Higher (ash) mineral level achieved with similar mechanical properties



- ✓ Faster dewatering due to reduced water retention
- ✓ Lower drying energy as water evaporates more easily



- ✓ Possibility to increase machine speed if dryer limited
- ✓ Sustainable solution for stickies prevention
- ✓ Cleaner machinery, reducing breaks and enabling the use of lower quality fibres

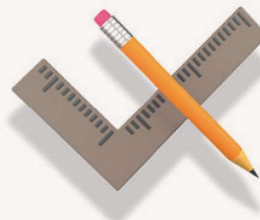


Thousands of tonnes of board using **POWERATE™** have already been produced with improved machine runnability

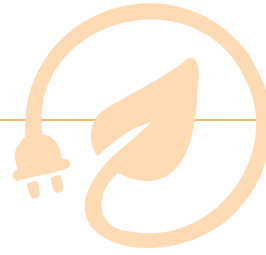
POWERATE™ solutions: a range of mineral-based engineered solutions for all types of virgin and recycled fibre substrates and technical machine configurations



The synergic combination of different benefits to achieve desired performance levels

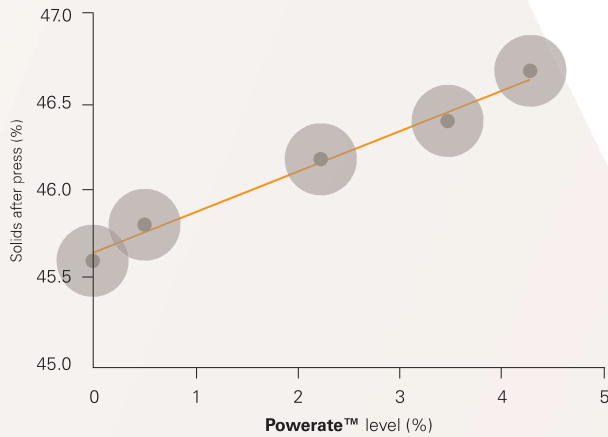


A tailor-made solution to meet specific customer needs

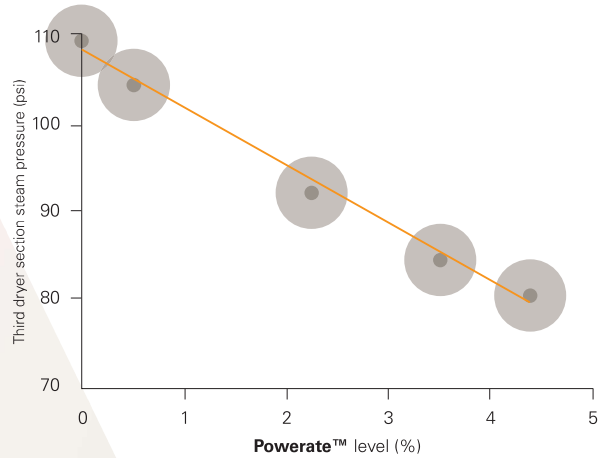


Example 1: Managing costs and energy consumption with POWERATE™

The addition of **Powerate™** increases solids after press



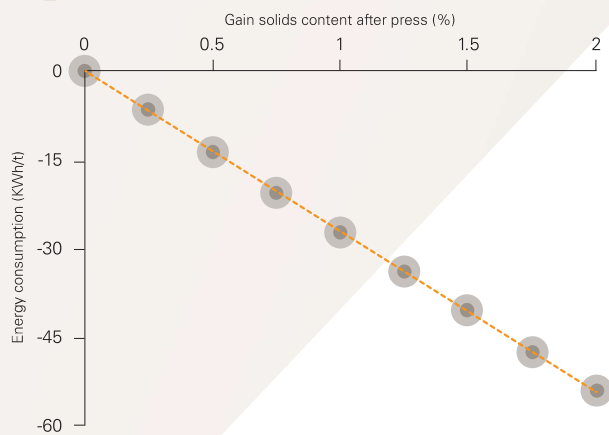
This increase of solids after press reduces the steam needed to dry liner



Steam consumption reductions can be translated into energy savings or production gains

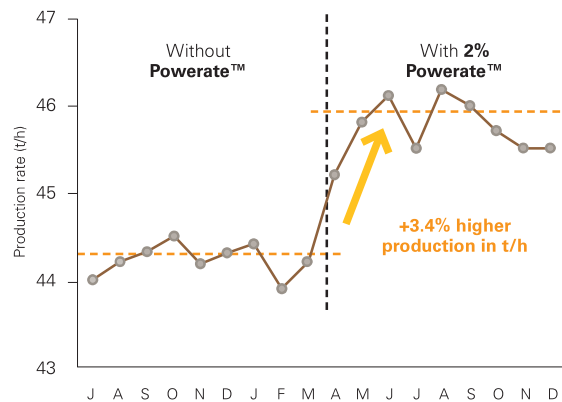
1

Energy saving



Production gain

2



Each 1% higher dry content means savings of 96 MJ or 27 kWh per tonne board -27 Kwh/t for 44.2 t/h means saving of 1.7 M€/y (KWh = 0.17 €)

POWERATE™

Example 2: Optimising machine cleanliness and runnability with POWERATE™

A Powerate™ solution was introduced up to 12% in a mill producing cartonboard. In addition to the benefits shown in example 1, this resulted in:



Significant reduction of deposits under the doctor blades and in the press section



Reduction in number of breaks due to stickies of **up to -70%**



Increased daily production of **+8%**



Simplification of raw material management allowing the use of lower recycled paper quality

Customer voice

“We are very satisfied with Powerate™. The efficiency of our carton board machine has improved significantly. It is now a key solution enabling us to achieve good production rates.”



For more information:

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