

**REINFORCE
FOR
PACKAGING**

**IMPROVED
STRENGTH AND
PRODUCTIVITY**

STRENGTH

on the machine and
on the bottom line.

Apply
Reinforce
dry strength
technologies
from
Buckman.

In this competitive world of packaging papers, it's not enough to make a stronger paper; you've got to have a stronger operation too. Reinforce them

both with the Reinforce dry strength management program from Buckman. It's a comprehensive line of products and expertise designed to optimize the strength and quality of your board while also simplifying logistics, saving energy and reducing your carbon footprint.

With Reinforce, you can be a real force for improvement—in your packaging mill, in the marketplace, and in the environment.



Make improved strength and productivity a part of the package.

Take charge of dry strength performance

If your package mill is like most, you are reducing fresh water usage whenever possible. That makes your systems more anionic, challenging functional chemistry performance. The Reinforce program, including Buckman's exclusive Bubond® chemistries, offers a wide range of cationic charges to overcome these challenges. So you can achieve maximum board strength while attaining real economic and environmental efficiency.

Increase strength

Designed for most recycled paper systems, Reinforce can help you significantly improve the bonded properties of your packaging paper, including:

- SCT
- Concora
- Ring crush
- Burst
- Ply-bond

Use less energy and fewer resources

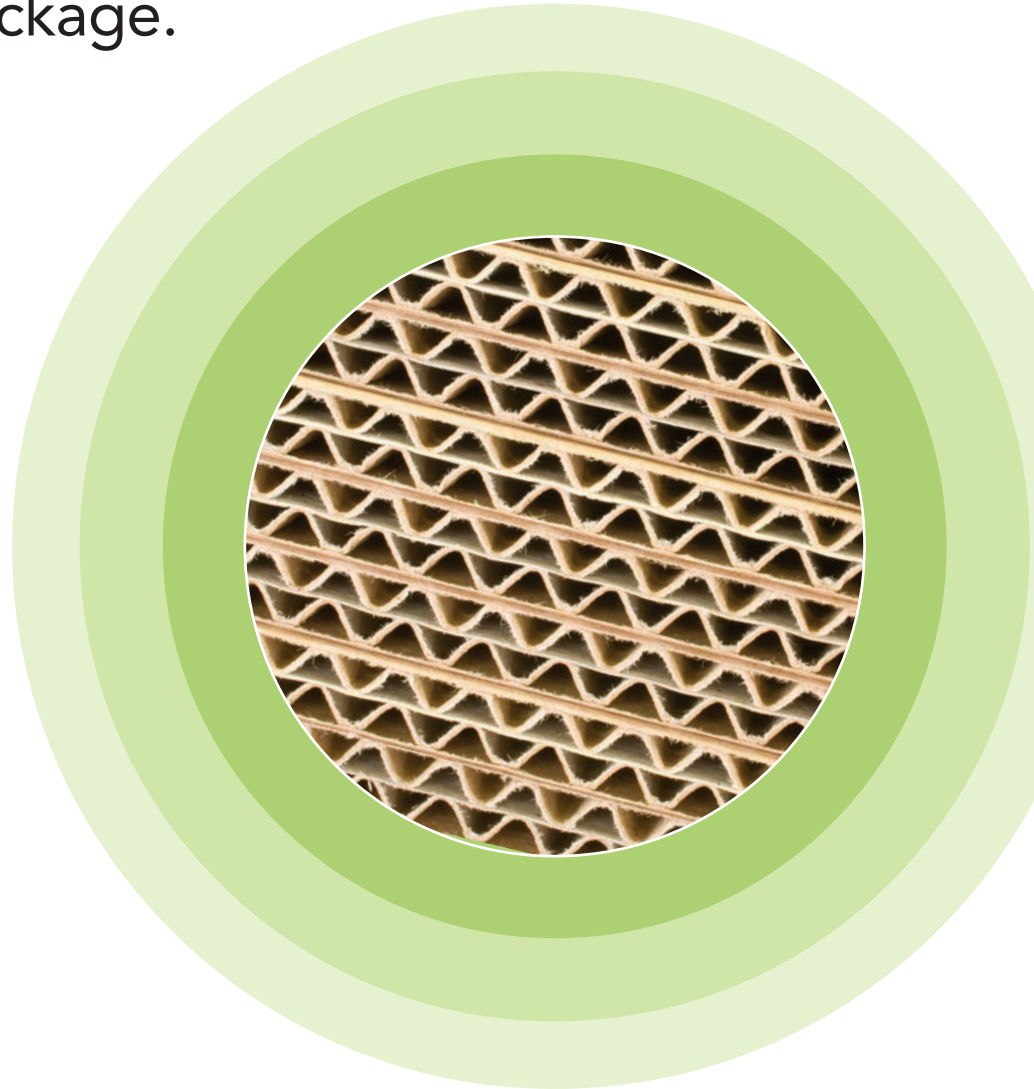
Reinforce dry strength technologies offer higher active products. So you get improved logistics and a measurable return on environment.

- Smaller storage tanks, smaller feed systems, fewer truck deliveries
- Higher recycled fiber utilization
- Reduced steam and energy use
- VOC-free
- Longer shelf life

Increase efficiency and quality

Look to Reinforce for:

- Improved drainage and dewatering
- New opportunities for grammage optimization
- Faster machine speed
- Enhanced product quality
- Increased grade capacity
- Reduced need for other additives



Case studies

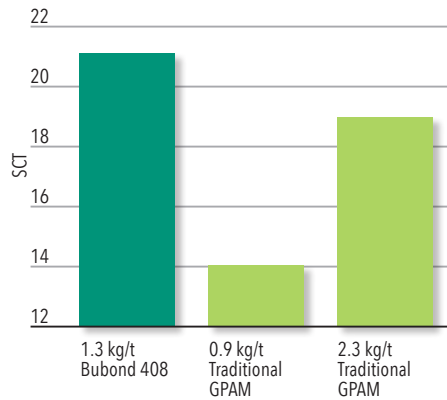
A mill making 100% recycled linerboard couldn't meet SCT specification with traditional GPAM treatments, even at lower production rates and with elevated dosage. So they turned to Buckman's Reinforce program, which prescribed Bubond® 408. Specifications were quickly met and the production rate was increased successfully.

A recycled linerboard machine switched from a competitive program to Buckman's Reinforce dry strength management program. In this case, a combination of two products, Bubond 505 and Bubond 5928, gave the best results. The machine increased production rate while maintaining all required strength tests. In addition, they were able to reduce refiner loading, resulting in a financial savings as well as a reduction in CO₂ emissions.

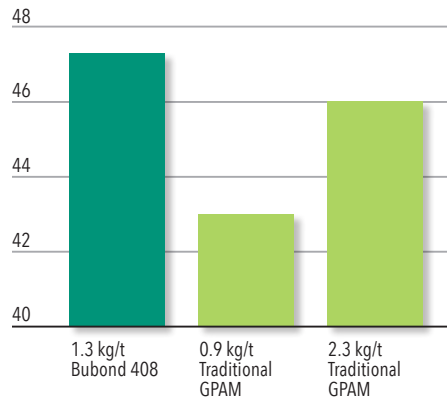
Learn more

Ready to maximize strength and optimize production? Reinforce your entire packaging operation with Buckman's Reinforce dry strength technologies. Contact your Buckman representative, or visit buckman.com for more information.

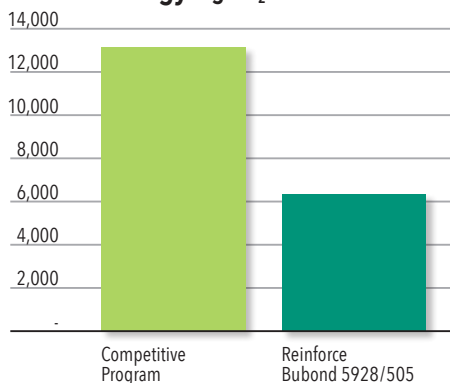
Bubond 408 vs. Traditional GPAM



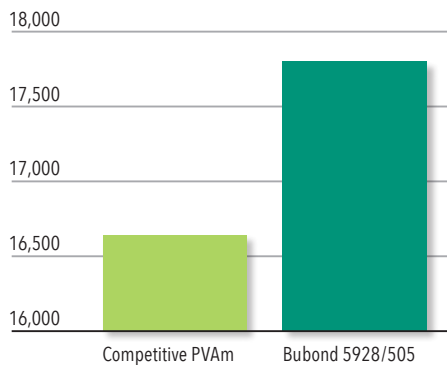
Production Rate tons/hour



Refiner Energy kg CO₂/month



Production tons/month



Product	Charge	% Active	Shelf Life	Strength	Speed	Logistics
Traditional GPAM	1X	7.5%	1 Month	+	+	1X
Bubond 647	1X	7.5%	1 Month	+	+	1X
Bubond 408	3.5X	12.5%	3 Months	+++	++	0.6X
Bubond 505	6.5X	22%	3 Months	++	+++	0.3X
Bubond 5928	7X	12%	3 Months		++++	0.5X

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