



Reduce Pop-Opens and Improve Case and Carton Sealing

A CASE STUDY ON BOSTIK'S KIZEN® FORCE



APPLICATION OVERVIEW

As packaging manufacturers look to increase production line efficiencies by eliminating pop-opens and reducing downtime, it's important to consider how the right case and carton sealing adhesive can make it easy to achieve these goals.

CUSTOMER PROBLEM

A leading food manufacturer was using highly recycled fiberboard across its packaging plants and required high line speeds to meet output demands. However, the company's case and carton sealing hot melt ethylene vinyl acetate (EVA) and metallocene adhesives were unable to bond successfully to the recycled board's shorter paper fibers. For example, the EVA adhesive charred easily, which caused:

- Frequent downtime
- Increased equipment maintenance
- Reduced line speeds

Additionally, the metallocene adhesive was unable to provide the needed set speed and specific adhesion level for recycled fiberboard. This meant:

- Increased pop-opens
- Reduced packaging performance

BOSTIK SOLUTION

To resolve the company's challenges across multiple lines, Bostik proposed Kizen® FORCE, an innovative case and carton sealing adhesive well suited for melt-on-demand systems and specifically designed to:

- Enhance productivity levels
- Reduce overall costs
- Heighten packaging performance

Developed in collaboration with Arkema, Bostik's parent company, Kizen FORCE is ideal for applications that require:

- Adhesion to recycled content
- Fast set speeds
- Good thermal stability
- Low char
- Superior specific adhesion
- Excellent wet out on a variety of substrates

Agreeing to trial Kizen FORCE, the leading food manufacturer was easily able to test the

new adhesive on top of existing solutions with little to no impact on its production lines.

VALUE TO THE CUSTOMER

During this test, the company experienced:

- 99% fiber tear
- 4x faster line speeds
- 25% reduction of spider webbing on packages
- Reduced pop-opens
- Decreased downtime
- Enhanced specific adhesion and set speed
- Improved package aesthetics and quality

Additionally, they were able to replace all lines with Kizen FORCE, enabling:

- SKU consolidation
- Streamlined efficiencies
- Reduced adhesive cost

Furthermore, Kizen FORCE provided improved clog resistance against the company's current EVA as well as enhanced specific adhesion and set speed when compared to its metallocene. By switching to Kizen FORCE, the company experienced reduced downtime, improved operational efficiencies and enhanced package quality overall.

KEY BENEFITS

Features	Benefits
Low char formulation and good thermal stability	Reduced equipment maintenance
Fast set speed	Increased line speeds for short compression time frame applications
Adhesion to difficult substrates	Decreased pop-opens and adhesive failure

BOSTIK HOTLINE

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