

Milliken®
Millad® NX® 8000 ECO
 The New Standard in Clear Polypropylene

CASE STUDY

STRENGTHENED BY COLLABORATION

Plastmore and Milliken create polypropylene packaging for chocolate brand with improved sustainability and performance

Challenge

This chocolate brand used crystal-clear polystyrene (PS) packaging containers nearly as recognizable as the brand itself—and changing the packaging could compromise the brand loyalty millions of Turkish customers felt.

Both the brand and its packaging partner Plastmore knew that if they were going to consider a packaging alternative for the chocolate line, clarity and performance were key. The current packaging, utilizing PS, offers a clarity previously unmatched by other plastics. PS is a denser, more rigid plastic as well, which seems ideal for packaging applications. In reality, the density of PS, recorded at 1040 kg/m³, combined with its brittle attributes, created a heavier package that often broke in transit. It is also a difficult plastic to recycle, as it is classified as non-recyclable under the Association of Plastic Recyclers' definition.

Thanks to Milliken's innovative Millad NX 8000 ECO additive, and supported by Milliken's technical and processing expertise, Plastmore could put forth a polypropylene packaging alternative that checks the clarity box—and deliver far more in the process.

Solution

Plastmore set to work with the help of its formulation partner, Milliken & Company. Over the course of 20 months, the development team formulated and trialed multiple iterations of a branded chocolate box made with PP. Through joint laboratory trials and evaluations, a resin formulation using Millad NX 8000 ECO would retain the clarity and physical properties of the current chocolate packaging when molded.

Millad NX 8000 ECO is an additive solution that delivers glass-like clarity at lower processing temperatures, enabling energy savings of up to 10%. Brand owners using PP resins clarified with Millad NX 8000 ECO can display a UL Environmental Claim Validation label on their injection-molded parts. Environmental Claim Validation provides independent validation that products live up to their environmental claims, helping increase consumer confidence and brand credibility overall.

Results

The chocolate brand rolled out its new PP packaging in the spring of 2024 to instant success. The updated PP chocolate boxes reduced plastic usage by 42% compared to the original PS packaging and minimized in-transportation breakage by approximately 7%. Using PP opened the door for in-mold labeling (IML) opportunities during converting. This streamlined the process, reducing factory labor without added material complexity, as the label itself is made of PP. PP is also highly compatible with current recycling methods, allowing this new packaging to be easily recycled once it reaches the end of its intended lifecycle.



Key Benefits



Reduced plastic usage by 42% while retaining clarity



Lighter weight



Reduced in-transit breakage by 7%



Improved energy savings up to 10%



UL Environmental Claim Validation



Contact us for more information
chemical.milliken.com/contactus



Please contact your Milliken representative for further product information including chemical registrations, food contact status, and other regulatory details.
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