



Global
Appliance
Brand*



Case Study

Global Appliance Brand & Polymer Fusion Labeling

How a Global Appliance Brand partnered with Polyfuze to create a durable dishwasher button system using Polymer Fusion Labeling



*This company's identity (including logo) has been intentionally withheld in this case study at their request for confidentiality. The photos shown are only references of possible label implementations.

Executive Summary

In this case study, we explore how “Global Appliance Brand,” renowned for its high-quality dishwasher drawers, overcame a significant challenge. The brand faced an issue with the durability of control button labels, crucial for both functionality and maintaining the brand’s esteemed reputation. Partnering with Polyfuze, a leader in labeling technology, they embarked on a journey to find a solution that ensured label longevity and resilience.

Background

This Global Appliance Brand is synonymous with durability and quality, being one of the largest in the world. Their dishwasher drawers, designed to last several years, were let down by rapidly deteriorating control button labels. This not only posed a usability issue but also threatened the brand’s image of reliability. The use of polypropylene for the buttons added complexity due to its resistance to traditional labeling methods.

Problem Statement

The primary issue faced by the Global Appliance Brand was the premature wear of control button labels on their dishwasher drawers, crucial for user interaction and brand representation. Despite extensive trials, no other labeling method could withstand the grueling performance tests. These tests replicated the harsh conditions within a dishwasher, including constant exposure to water, detergents, and varying temperatures. The failure of existing label solutions to pass these tests highlighted the need for a more resilient and durable labeling technology.

Solution

After extensive testing of various labeling technologies, Polyfuze emerged as the only solution capable of meeting the rigorous demands of the Global Appliance Brand. Their innovative polymer fusion labeling technology proved uniquely suited to the challenging environment of dishwasher drawers. Unlike other methods, Polyfuze’s labels successfully endured the harsh conditions of detergents, water exposure, and variable temperatures, making it the standout choice for durability and longevity. This technology’s success marked a significant advancement in labeling solutions for difficult surfaces like polypropylene.

Implementation

Implementing Polyfuze’s solution involved integrating their advanced labels into the manufacturing process, ensuring each dishwasher drawer boasted labels as robust as the appliance itself.

Results

The implementation of Polyfuze’s labeling technology yielded impressive results. In rigorous testing, including up to 10,000 abrasion cycles and prolonged immersion at 85°C, the labels exhibited remarkable durability. These tests, simulating the extreme conditions of dishwasher use, demonstrated the labels’ ability to maintain legibility and adhesion. This was a crucial development, as an engineer noted: “Observations confirm viability of Polyfuze’s own test report documentation. Polyfuze is indeed an advanced performer for long-term polypropylene graphics longevity.” This endorsement underlines the success of Polyfuze’s solution in addressing the challenges faced by the Global Appliance Brand.

Analysis

The comparative analysis underscored the superiority of Polyfuze’s technology over traditional labeling methods. The labels not only met but exceeded industry standards for durability, especially in challenging conditions.

Conclusion

The introduction of Polyfuze’s polymer fusion labeling technology in for the Global Appliance Brand’s dishwasher drawers is not just a triumph of innovation in addressing durability challenges, but also a significant step forward in environmental sustainability. These labels are fully recyclable, harmonizing perfectly with the polypropylene components of the dishwasher drawers at their end of life. This ensures that the entire unit can be recycled in a unified, eco-friendly process, aligning with responsible disposal practices like recycling programs, donations, and professional services, while adhering to environmental and local regulatory standards.