



Case Study

Lawnmower Branding & Safety with Polymer Fusion Labeling

How Polyfuzer & Mold In Graphics partnered with the leading Lawn & Garden brands to innovate branding and safety on commercial-grade lawnmowers.



Executive Summary

Mold In Graphics® and Polyfuze® revolutionized the commercial-grade lawnmower market by offering unique, branded solutions that comply with stringent safety and warning standards. Utilizing their innovative Polymer Fusion Technology, they provide durable, compliant, and customizable markings crucial for both brand differentiation and user safety. This case study examines the transformative impact of this technology, demonstrating its crucial role in enabling product differentiation, regulatory compliance, and enhanced safety.

Background

In the pursuit of innovation, Mold In Graphics® and Polyfuze® aim to distinguish their offerings through enhanced branding and safety features. The market includes numerous established companies such as John Deere and Scag, along with others like Exmark, Gravely, Toro, Cub Cadet, Husqvarna, Scag Power Equipment, Ferris, and Kubota. Currently, Mold In Graphics® and Polyfuze® do business with industry leaders such as Toro, Bad Boy Mowers, Scag, Hustler, and Wright Mowers.

Problem Statement

The ambition to enhance branding and safety posed significant challenges: finding a technology capable of enduring the harsh outdoor environment without degradation, fading, or damage, while meeting stringent safety standards. Traditional adhesive labels often fail under these conditions. For example, permanent adhesive-based labeling on a brand-new riding lawnmower at Home Depot showed signs of cracking and lifting after only a short period in the Arizona sun, violating ANSI/OPEI B71.1-2017 standards. Additionally, from 2013 through 2015, an average of 35,000 people were treated annually in hospital emergency rooms for walk-behind power mower injuries, underscoring the critical need for enhanced safety measures. While manufacturers attempt to shift some responsibility to end users through maintenance clauses, they remain primarily accountable for the safety of their products. Ensuring durable and clearly visible safety labels, combined with proactive consumer education, can significantly reduce the risk of injury and subsequent liability issues.

Solution

Mold In Graphics® provided an innovative solution with their Polymer Fusion Technology, designed for polyolefin thermoplastics. This technology ensures labels form a durable bond with the surface, showing no appreciable loss of adhesion or legibility during weathering exposure or exposure to spilled fuel or oil. Evaluations confirmed compliance with relevant safety standards, showcasing non-fading, durable, and highly visible markings that meet international requirements.

Broad Application

The application of Polymer Fusion Technology by Mold In Graphics® and Polyfuze® has opened vast possibilities for the commercial-grade lawnmower industry. This technology enhances customization and design across various lawnmower models, ensuring durable, safe, and personalized markings that improve user experience and product differentiation. technology enhances user experience and product differentiation, offering new avenues for patient-specific solutions in dental care. This advancement

Price vs. Cost

Polymer Fusion Labeling Technology offers a significant Price vs. Cost advantage. Labels are designed to endure the lifespan of rigorously used commercial-grade lawnmowers, ensuring safety warning labels remain intact and brand labels preserve their identity and image, reinforcing customer loyalty and brand recognition.

Standards and Manufacturer's Responsibilities

ANSI/OPEI Standards

The ANSI/OPEI (American National Standards Institute / Outdoor Power Equipment Institute) standards require that labeling on outdoor power equipment, including commercial-grade lawnmowers, lasts for the life of the product. Manufacturers must ensure their labels are durable enough to withstand the operational and environmental conditions the equipment will face over its lifespan. Despite these standards, manufacturers often place clauses in their user guides stating that the owner must maintain or replace safety instruction labels as necessary. For instance, they may include statements such as, "If any of the labels come off the unit or become hard to read, contact an authorized service center for replacement." This can be seen as a way for manufacturers to transfer some responsibility to end users. However, legally, manufacturers are typically held accountable for the safety of their products, including the adequacy and durability of safety labels. If a label fails and leads to injury, the manufacturer can be liable under product liability laws.

Best Practices

To mitigate risks and enhance safety, manufacturers and end users should adopt best practices such as using durable labeling solutions like Polymer Fusion Labeling, providing clear user instructions, encouraging routine inspections, and ensuring regulatory compliance. Regular reminders through various communication channels and proactive customer education can also enhance safety and reduce the risk of injury.

Results

The integration of Polymer Fusion Technology has set new industry standards for branding and safety in commercial-grade lawnmowers. Several used 2013 mowers, including Bad Boy, Toro, and Wright models, feature Polymer Fusion branding. Despite years of rigorous use and exposure to harsh conditions, the branding on these mowers remains intact and legible, demonstrating the exceptional durability of this technology.