



RoadRescue's Sustainable Packaging Revolution

Case Study

RoadRescue® Asphalt Company is a prominent player in the asphalt and pavement maintenance industry. The company operates nationwide, providing a range of services that include road repairs, pothole filling, and asphalt maintenance.

Recognizing the environmental impact of its operations, RoadRescue embarked on a transformative journey to reduce its carbon footprint by revolutionizing its packaging approach. Phasing out the rigid 50-pound bucket to a ground-breaking two-sided seal pouch led to a new packaging standard and a range of compelling advantages for the product.

This shift from bucket to pouch led to recognition from the Flexible Packaging Association in the form of the "Expanding the Use of Flexible Packaging" Golden Award. The award acknowledged RoadRescue's commitment to sustainability and innovation.

Challenge

According to research from IBISWorld on the road and highway construction industry, this sector is on the rise across the USA. The current market size of the road and highway construction industry is measured at \$160.9 billion in 2023.¹ In January 2024, the US Department of Transportation announced more than \$4.9 billion in funding for infrastructure across the US.²

As road construction projects continue to expand across the country, packaging containers and other materials will also become more prevalent. According to Professor Mohamed Osmani, expert in Sustainable Design and Construction,

up to 30% of building materials delivered to a typical construction site can become waste.³

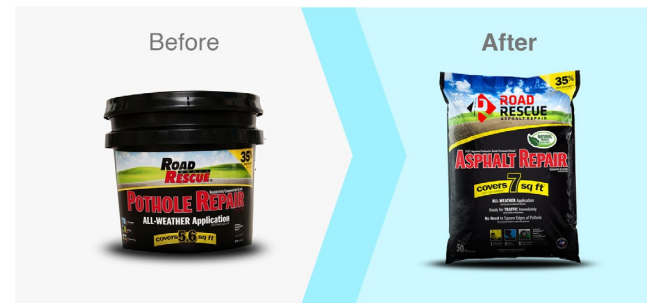
In 2018 alone, the Environmental Protection Agency reported that 600 million tons of construction and demolition debris were generated in the United States, and just under 145 million tons of construction and demolition debris were sent to landfills.⁴

Traditionally, RoadRescue packaged its 100% natural, easy-to-use asphalt and concrete repair product in plastic buckets. This is common practice in the industry as plastic is strong and keeps the product safe from harmful elements. However, these buckets generate waste and contribute to increased carbon emissions in their manufacture, and their disposal poses significant environmental challenges. Plastic buckets are unwieldy and inefficient to transport, adding to the company's overall carbon footprint.

As sustainability became a key concern for consumers and businesses alike, RoadRescue recognized the need for a more eco-friendly and efficient packaging solution. RoadRescue began its search for a packaging solution that would reduce carbon emissions in the transporting and manufacturing process, and that would result in less waste for landfills later on.

Solution

Road repair products such as RoadRescue Asphalt Patch must be protected from elements such as UV rays and moisture. Moisture hardens asphalt and renders it useless for road repairs. Packaging must stand up to tears from being transported from pallets to trucks. Additionally, this packaging must also add to the product's environmental value as a recyclable, low-waste product.



Polymerall Flexible Packaging developed a standard-setting two-sided seal pouch, breaking new ground in packaging solutions for asphalt repair that is sustainable and durable. The RoadRescue pouch holds 50 pounds of asphalt mixture for pavement repair, tackling the challenge of UV exposure with a UV-resistant substrate.

This pouch features a remarkable 8-color print job produced on a BOBST 20Seven flexographic printing press, renowned for its high-quality printing capabilities. 8-color printing yields vibrant and detailed graphics and enhances the overall visual appeal of the packaging. Additionally, the printing process involves specialized ink systems, including Flint inks, tailored for excellent print quality and UV resistance.

This durable packaging comes with resealable closures and gas exchange vents, reducing product waste and increasing product life.

The RoadRescue pouch also features custom lamination adhesives, meticulously developed to guarantee that the product would not de-laminate, thanks to Polymerall's customized lamination adhesives and primers. Even when subjected to the extreme heat and direct sunlight of summer road work and retail environments such as parking lots and truck yards, the adhesives prevent separation.

¹ IBISWorld (2023). Road & Highway Construction in the US - Market Size, Industry Analysis, Trends and Forecasts (2024-2029)

² U.S. Department of Transportation (2024). Biden-Harris Administration Announces \$4.9 Billion in Funding for Transformational Infrastructure Projects

³ Osmani, Mohamed (2011). Waste: A Handbook for Management, Chapter 15 - Construction Waste

⁴ United States Environmental Protection Agency (2024), Sustainable Management of Construction and Demolition Materials

Results



Reduced company's CO² footprint



Saved on packaging costs



Ensured durability under extreme conditions



Enhanced product portability and commercialization

By making this switch, the company realized significant savings on packaging costs compared to costs related to pails, labels and label application. Polymerall's packaging solution reduces truck loads with its flexible shape and, therefore, the company's carbon footprint. Approximately 8 skids are needed to transport a 50,000 pouch order, compared to 8 truckloads for buckets.

Moving from rigid buckets to a flexible pouch allows transportation and portability to become much more manageable. Not only that, without the bulky shape of round buckets, warehouse storage space becomes incredibly efficient.

With flexible packaging comes less waste, since this type of packaging increases the product-to-package ratio and sends less material to landfills.



Online sales are available through trusted, prominent retailers such as Home Depot, Amazon, and Lowe's, adding convenience to the list of benefits when buying RoadRescue products. The cost-effective transport and low-maintenance handling of the pouch make this product ideal for e-commerce.

Not surprisingly, this transformative shift from buckets to pouches drew attention. RoadRescue® Asphalt Company's commitment to sustainability and innovation earned the company the "Expanding the Use of Flexible Packaging" Golden Award from the Flexible Packaging Association. This prestigious award not only recognized RoadRescue's dedication to reducing its carbon footprint but also shone a light on the potential of flexible packaging in the construction industry.

The RoadRescue 50lb pouch is manufactured at Polymerall's Excel Nobleza facility in Mexico and showcases our commitment to top-of-the-line quality in production.

Polymerall is proud of our hand-in-hand collaboration with a company committed to sustainable and cost-effective solutions. We collaborate across industries to develop packaging solutions that are customized according to our clients' needs. We go the extra mile to deliver premium packaging for our clients and their products.

