



How can we help **improve asphalt pavement?**

Whether you're driving to work or to visit a family member, you rely on asphalt roadways to get you to your destination. However, all over the world, our roads take constant abuse. High traffic. Heavy loads. Extreme heat. Frigid weather.

What if we could add something to asphalt to enhance its integrity and increase its life expectancy? That's where ELVALOY™ Reactive Elastomeric Terpolymer (RET) comes in. This technology supports the development of resilient and durable road infrastructure.

How does ELVALOY™ RET work?

The short answer is by forming a chemical bond with asphalt, resulting in extremely stable polymer modified asphalt (PMA). This advanced material enhances asphalt binders at a molecular level, improving road quality and longevity.

Let's take a closer look:

- **Durability & Longevity:** Extreme weather conditions, high traffic, and heavy loads can have significant impacts on asphalt. High temperatures and heavy loads can lead to asphalt rutting, and other types of deformation. Low temperatures can make asphalt more brittle, increasing the risk of cracking. Modifying asphalt with ELVALOY™ RET offers high resistance to changes in temperature, helping prevent rutting, cracking, and fatigue. This exceptional durability helps keep our roads smoother and last longer.
- **Innovation & Sustainability:** Our asphalt modification technology helps drive a more circular economy by supporting the development of recycled polymer modified asphalt (RPMA). Incorporating recycled plastic, from sources such as grocery bags or sachets, into pavement with ELVALOY™ RET helps reduce plastic waste – and put it to good use (see sidebar for more details).
- **Experience & Efficiency:** From design and formulation through completion, Dow works side by side with customers and municipalities to address their distinct challenges. The world needs high-quality, long-lasting, cost-efficient asphalt pavement, and Dow works tirelessly to help ensure our asphalt modification technologies stand up to the test.

Want to learn more about our innovative chemistry?

Please visit www.elvaloyret.com or contact a Dow representative.



Did you know?

Our recycled polymer modified asphalt (RPMA) paving pilot projects span the globe. To date, we've collaborated to help divert 903,895 lbs. (410 MT) of plastic waste from landfills. A few examples include:

- 40.4 miles (65 km) in Bangalore and Pune, India
- 2.49 miles (4 km) in Guanajuato, Mexico
- Approximately 0.62 miles (1 km) in the Varna region of Bulgaria
- 151,039.17 yd² (414,330.642 m²) in Holland, Michigan, USA

One of our recent developments, ELVALOY™ RET MF 1177, has received two highly prestigious awards for innovation: the 2022 R&D 100 Award and the 2023 Gold Edison Award in the Circular Economy Category.



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