

DRIVEN PLASTICS

Repurposing waste plastic to improve the quality and cost of asphalt and minimize the plastic pandemic.

FWT and HYB: A custom formulated additive for asphalt binder that is sourced from waste plastic

OVERVIEW:

Ecologic Materials produces an asphalt binder modifier from non-recyclable single use plastic bags (LDPE), destined for landfills and oceans. This improves the longevity and performance of asphalt roads in various climates and conditions. While this technology has been explored unsuccessfully for decades, our company has co-developed a patented, commercially viable technology as a proven environmental solution.



THE PRODUCT

- is a custom formulation that is added to binder companies for inclusion in their unique blends to accommodate local specifications for asphalt binder.
- was independently tested by NCAT to improve properties such as stiffness and resistance without cracking due to extreme temperature ranges or fatigue. They also match the performance of styrene butadiene styrene (SBS) at less cost.
- helps 1) improve road performance 2) lower the cost of asphalt binder 3) lower the cost of ongoing maintenance for roadways and parking lots and 4) solves an environmentally and politically toxic plastic waste problem.



PRODUCT INFORMATION:

- FWT and HYB are a custom formulation of landfill bound waste plastic, reactive terpolymers and co-reactants designed for the enhancement of binder for asphalt used in road surfaces.
- Formulations are designed and tested to be added into asphalt in order to maximize environmental and economic benefits without adversely impacting asphalt performance.
- Ideally suited to surfacing intersections, roundabouts and slow moving, heavy vehicle areas, where deformation resistance is critical.
- Suitable for all mix design and all layers of road construction.
- Increases the stiffness of binder and base course layers in order to reduce the overall thickness of pavement required.



FEATURES AND BENEFITS

A green solution that repurposes up to 3 tons of plastic per mile of roads*

- Reuse of "difficult" or non-recyclable thin film plastic
- Reduces greenhouse gas emissions

REDUCING MATERIALS AND INITIAL COST

- Direct reduction of binder cost**
- Decrease thickness of the wear layer
- No high-shear mixing
- Drop in for current mix designs

REDUCED COST OF MAINTENANCE

- Improved stiffness and deformation
- Reduced rutting and cracks***
- Improved freeze and thaw capabilities

* Test data available upon request

** As compared to SBS modified binder

*** As compared to unmodified binders

