



**UNIVERSAL  
MATTER**  
ADVANCED MATERIALS

## USING CARBON TO DECARBONIZE

# ASPHALT

### This Changes Everything...

Universal Matter upcycles carbon into graphene and related advanced materials to boost the performance and sustainability of your innovations.

### Fully Formulated Graphene-Based Solution

Our process delivers high quality, economical graphene and related advanced materials from simple carbon feedstocks enabling optimized solutions that enhances performance and reduce carbon footprint.

- ✓ High quality graphene
- ✓ Fully formulated dispersions with tunable morphologies & structures
- ✓ Value-adding performance benefits
- ✓ Highly sustainable



### Introducing **Genable™ Pavement** *Graphene-Enhanced Polymer Modifier*

We understand the challenges faced by asphalt innovators. Our unique graphene-enhanced polymer modifier offers value adding performance and sustainability benefits.

### Improved Mechanical Performance

- ✓ Reduced Rutting and Fatigue Cracking
- ✓ Improved Fatigue Resistance
- ✓ Potential to extend paving life vs current SBS modified asphalt

### Enhanced Binder Performance

- ✓ Increases asphalt binder performance grading by "2 bumps" without losing the low temperature rating

### Reduce Carbon Footprint

- ✓ Opportunity to increase RAP loadings
- ✓ Overall performance benefits can lead to fewer road repairs and less resurfacing

**Genable™ Pavement**  
UNLOCKING THE POTENTIAL OF GRAPHENE



# **Genable™ Pavement**

## Elevating Performance, Embracing Sustainability

Revolutionize your road construction projects with **Genable™ Pavement**, the cutting-edge graphene-enhanced polymer modifier for asphalt paving.

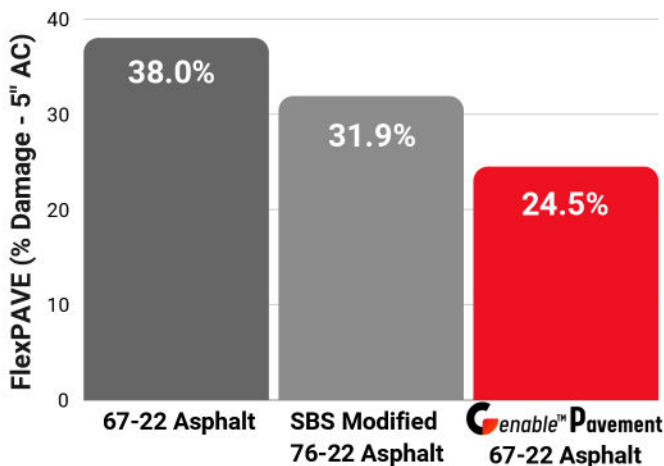
With **Genable™ Pavement**, you can expect reduced rutting, decreased fatigue cracking, and improved overall fatigue resistance, resulting in roads that stand the test of time and heavy traffic






Our advanced formula not only extends pavement life beyond that of SBS-modified asphalt but also allows for a reduced equivalent pavement thickness.

By choosing **Genable™ Pavement** you're not just investing in superior road quality; you're embracing a more sustainable future with lower emissions, increased RAP usage potential, and significant cost savings throughout the pavement's extended lifecycle

### Outstanding Compression Strength Performance

#### Fatigue Damage at 10M ESALs



-  Reduced Rutting & Fatigue Cracking
-  Increased Fatigue Resistance
-  Improved binder performance with opportunity to increase RAP content
-  Projected to significantly extend road life vs standard SBS modified asphalt
-  Decrease carbon footprints, building a sustainable future

### Included in NCAT test track build for 2024-2026

Testing cycle (Section S4-1)

Verified Testing



**Paving the way to stronger, more sustainable, longer-lasting roads**

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