



USED FOR



Rutting

ENVIRONMENTS



Ports



Industrial



Airports



Roundabouts
& Intersections



EME2 is a high-modulus asphalt engineered for stronger, thinner, and longer-lasting pavements.

EME2 offers superior rut resistance and significantly extends pavement lifespan, making it the optimal choice for high-stress environments. Bringing this cutting-edge product to Kiwi roads, Road Science is the only local manufacture of EME2 bitumen that supports structural asphalt mixes.

Developed in France over 30 years ago, EME2 is designed for heavy-duty pavements, especially on high-traffic roads and complex stress areas like roundabouts. Unlike standard asphalt, which relies on aggregate interlock for rut resistance, EME2 uses a hard bitumen grade (15/25 pen) for enhanced stiffness and durability, making it ideal for demanding pavements. EME2 outperforms traditional mixes, delivering unmatched strength and longevity in the toughest conditions.

Where to use EME2

- Heavy duty asphalt pavements
- Bus stops and bus lanes
- High rut and shear resistance areas
- Ports, airports, industrial yards

NB: This EME2 is not suitable as a wearing course

Benefits

- Reduced asphalt thickness by 30-50%
- Extends service life
- Enhanced fatigue resistance
- Superior rut resistance
- Performance-based mix design (durability, workability, stiffness)



Specification

NZTA M32 Specification for high modulus asphalt (EME2)

Property	Method	Specification	
		10/20	15/25
Penetration (dmm)	ASTM D5	10-20	15-25
Softening point (°C)	ASTM D36	59-79	56-72
Viscosity @ 135 °C (mPa.s)	ASTM D4402	700min	600min

Properties



Handling

For safe handling of bituminous materials, please refer to the [Best practice guideline: Safe Handling of bituminous materials used for roading](#) (BPG01)

EME2	
Normal safe handling temperature	170 °C
Maximum safe handling temperature	190 °C
Normal pumping temperature	170 °C
Mixing binder temperature	
Varies depending on binder grade supplied. Refer to the specific asphalt mix design report.	

Heating

The reheating of EME2, especially from cold, needs to be undertaken slowly with the rate of heating not exceeding 10 degrees per hour.

Pulsed heating cycles are preferred when using burner tubes.

Storage

EME2	
Short term storage temperature (up to 2 days)	190 °C
Medium term storage temperature (3 to 5 days)	170 °C
Long term storage temperature (beyond 5 days)	130 °C

Treatment Selection + Mix Design

If you're unsure which treatment solution is best suited for your project — considering factors such as traffic volumes and asset management — consult a member of the Road Science Product Development Team. They can assist in determining the appropriate treatment selection and guide you through the mix design process.

Application

Follow NZTA M32 guidance on manufacture and construction processes. Refer to the specific asphalt mix design report for binder application rate.

Sampling

For managing bitumen quality, please refer to the [Waka Kotahi NZ Transport Agency Q05 specification for managing bitumen quality report](#)

Need more information?

At Road Science, we're committed to providing innovative solutions backed by engineering expertise. If you have any questions about this product, need technical guidance, or want to discuss how it fits your specific project needs, our team is here to help. Contact us today for expert advice and tailored support. Contact us via **0800 180 200** or visit our website at **roadscience.co.nz** to learn more.

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