ArmourPave™

High Performance Asphalt Mix

ArmourPave is a high-performance asphalt mix to meet the demands of heavy-duty environments such as container terminals, intermodal facilities and hardstands.

Developed by Downer's Road Science Product Development Team, ArmourPave, is a high-performance asphalt mix specifically for the demands of heavy-duty environments.

Heavy duty environments typically require asphalt mixes to withstand:

- Heavy Loading
- Channelized Traffic
- Static and Dynamic Loads
- Point Loading
- Extreme Heat
- Deformation
- Fuel Spill Damage

Developed in close collaboration with operational stakeholders, ArmourPave has been optimised from selected mineral aggregates, fillers and polymer modified binders to deliver these requirements with exceptional load-bearing capacity, resistance to deformation, and long-term durability, making it a reliable solution for high-stress environments such as container terminals, intermodal facilities and hardstands.

Benefits include:

- High resistance to deformation Point Load Resistance
- High indirect tensile modulus Engineered for Static & Dynamic Loading
- Excellent resistance to fuel and chemical exposure
- Tailored formulation to local materials
- High temperature tolerance
- Enhanced permeability



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Where to use

ArmourPave can be applied on any area which is subjected to heavy high intensity loading regimes that are significantly higher than those due to typical highway traffic such as:

- Container terminals
- Intermodal facilities
- Docksides
- Hardstands, industrial & stack yards
- Bus and transport depots
- Heavy trafficked intersections.

Specification

Property	Method	Typical values
Mean Indirect Tensile Modulus	AS 2891.13.1	6,000 - 9,500 MPa
Indirect Tensile Strength Ratio (TSR)	ATM 232	More than 80%
Wheel Tracking	ATM 231	Less than 2.0 mm

Designed through rigorous testing and performance optimisation, ArmourPave incorporates a proprietary polymer-modified bitumen with interlocking aggregate structure that enhances elasticity, durability, and resistance to deformation, fuel, and chemical exposure. ArmourPave maintains structural integrity under repeated heavy loads and high temperatures.

The aggregate matrix features optimal stone on stone contact to support load patterns encountered in a port environment.

ArmourPave has already demonstrated performance success in port applications.

Application

ArmourPave can be laid using conventional asphalt paving equipment, making it compatible with standard construction practices and readily deployable on-site. However, to ensure its enhanced performance characteristics are fully achieved, the mix must be placed and compacted under stricter quality control specifications than typical asphalt.

ArmourPave as a cost competitive to alternatives treatments such as rigid pavements, providing the flexibility in application that suits the short construction turnaround time required, keeping critical areas operational.

Storage and handling

ArmourPave can be handled in the same way as conventional asphalt with no additional requirements.

Health and Safety

ArmourPave is classified as hot mix asphalt and therefore not classified as either a Dangerous Goods or Hazardous according to relevant legislation. Safety Data Sheet is available upon request.

Supply

The product is available from all Downer Asphalt Manufacturing facilities where local aggregates are suitable for heavy duty applications.

Teamed with placement by Downer crews, experienced in specialist applications such as airports, ports and intermodal environments, the product delivers without compromise.

Enquiries & Orders

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