



PREMIUM INFRASTRUCTURE SOLUTIONS

SBS CH Polymers for Bitumen Modification

CH332 Grade – High-Performance Radial Copolymer



Building the Foundation of Tomorrow

Emaar Square General Trading & Contracting Company is a premier provider of advanced infrastructure and asphalt technologies tailored for the rigorous demands of Kuwait and the GCC markets.



Premium Materials

Sourcing top-tier thermoplastic elastomers for heavy-duty paving applications.



Technical Excellence

Bridging the gap between global manufacturing science and local engineering specifications.



Strategic Reliability

A trusted, seamless supply partner for asphalt plants, contractors, and government ministries.

Introduction to SBS CH332

CH332 is a premium Styrene-Butadiene-Styrene (SBS) block copolymer specifically engineered for advanced bitumen modification and heavy-duty waterproofing applications.

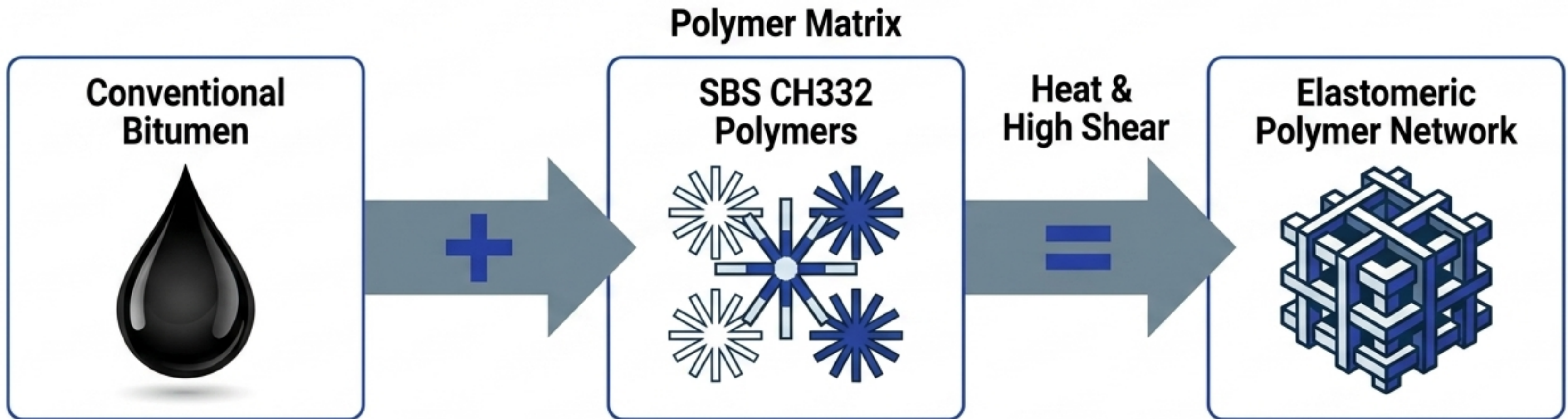


Product DNA

Polymer Type:	Non-oil Extended Grade Thermoplastic Elastomer
Structure:	Radial Block Copolymer
Composition:	Bound Styrene 29.5% ~ 30.5% wt
Physical Form:	Supplied in pellet/powder form
Origin:	Produced by elite International Manufacturing Partners

The Science of PMB (Polymer Modified Bitumen)

SBS modification transforms conventional bitumen from a temperature-sensitive viscous liquid into a robust elastomeric network. Polystyrene end-blocks provide structural strength and heat resistance, while polybutadiene mid-blocks deliver crucial elasticity and flexibility.



Significantly expands the viscoelastic temperature range of the binder.

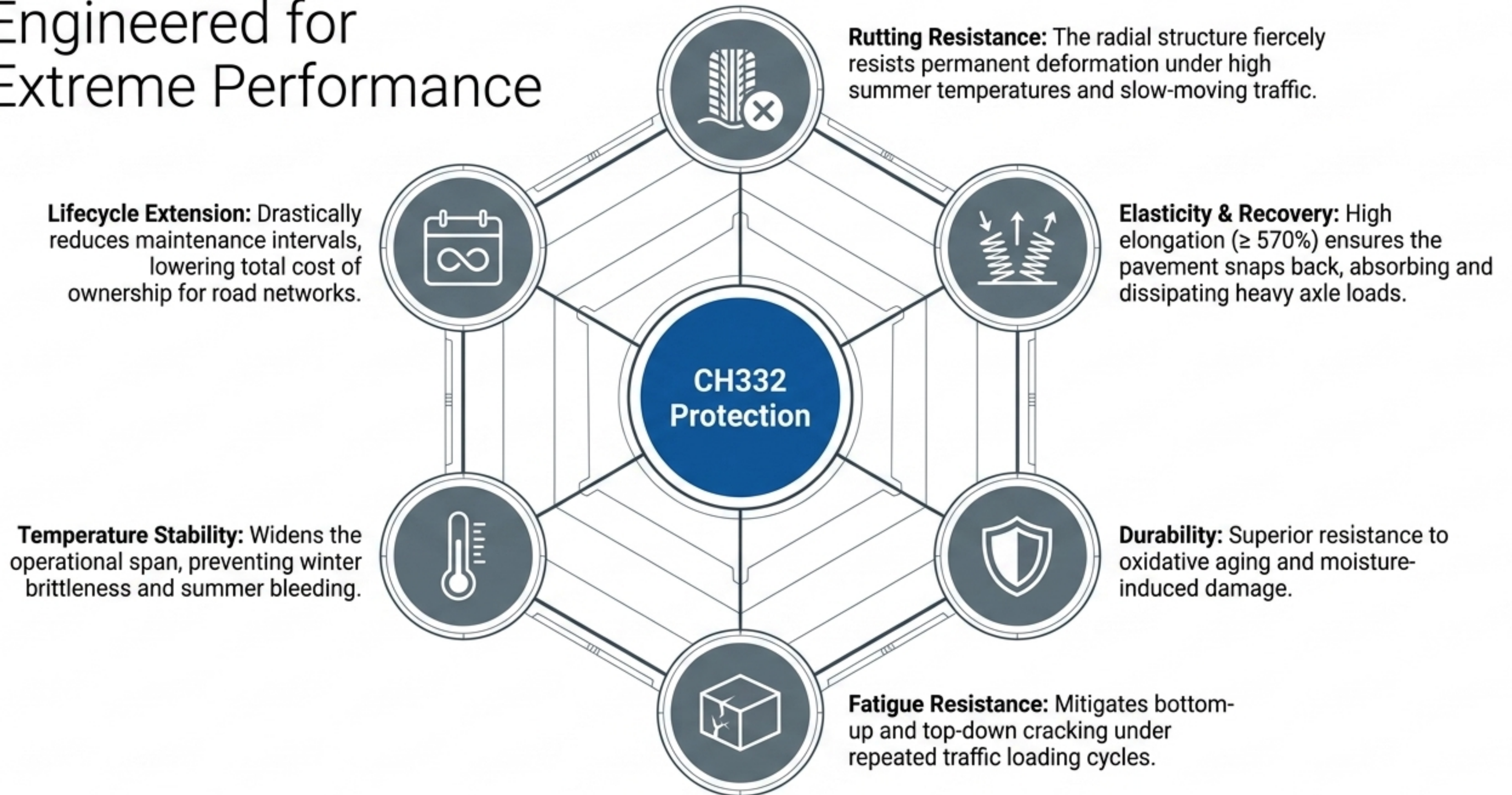
Delivers immediate structural recovery from deformation under heavy axle loads.

CH332 Technical Profile

i Highly compatible with a wide range of base bitumens, ensuring seamless integration into existing PMB plant operations.

Property	Value	Test Method
300% Tensile Modulus	$\geq 1.80 \text{ MPa}$	GB/T 528
Tensile Strength	$\geq 10.0 \text{ MPa}$	GB/T 528
Elongation at Break	$\geq 570\%$	GB/T 528
Hardness (Shore A)	$\geq 80\text{A}$	GB/T 531.1
Tensile Set after Break	$\leq 30\%$	GB/T 528
Volatility	$\leq 1.00\%$	GB/T 6737
Ash Content	$\leq 0.20\%$	GB/T 4498
Yellow Index	≤ 6	Q/CH.YF.003.009

Engineered for Extreme Performance



Deployed in Demanding Environments



Highways & Expressways

Designed for high-speed, high-volume traffic corridors requiring long-term structural integrity.

Heavy Industrial Roads

Protects ports and logistics hubs facing extreme, slow-moving weight loads.

Bridge Decks

Provides highly flexible, fatigue-resistant surfacing over structural expansion joints.

Airport Pavements

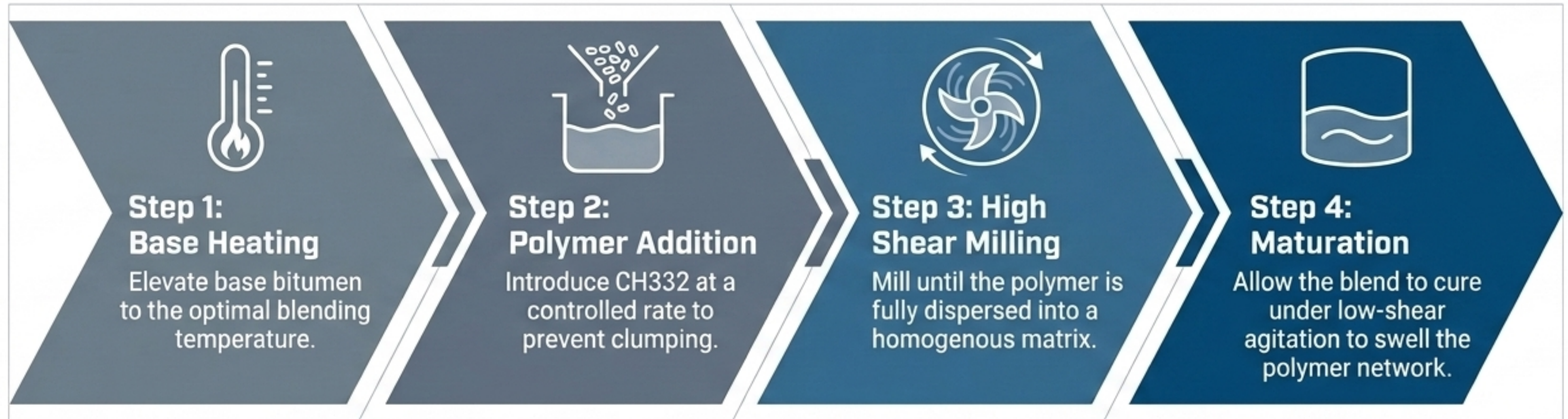
Engineered for runways and taxiways demanding strict shear-stress resistance against aircraft braking forces.

Intersections & Roundabouts

Fortifies high braking and accelerating zones highly prone to shoving and rutting.

PMB Production & Mixing Guidelines

CH332 pellets are specifically formulated for efficient dispersion in standard PMB high-shear milling plants. Proper dispersion is the critical factor in achieving the target polymer network.



Notice Box

Specific dosage rates, blending temperatures, and milling times are dependent on base bitumen origin and desired final PG grading. **Specific mixing values to be confirmed based on official formulation documents and trial mixes.**

Conventional vs. SBS Modified Binder

Performance Metric	Conventional Bitumen	SBS CH332 Modified Bitumen
Softening Point	Baseline	Significantly Higher (↑)
Elastic Recovery	Minimal	Highly Elastic (↑)
Rutting Resistance	Moderate	Excellent (↑)
Fatigue Resistance	Moderate	High (↑)
Temperature Susceptibility	High (Vulnerable)	Low (Highly Stable) (↓)
Overall Durability	Standard	Extended Lifecycle (↑)

Rigorous Quality Assurance & Testing

Final PMB blends utilizing CH332 are evaluated under advanced testing protocols to guarantee compliance with local and international paving specifications:



Fundamental Properties

Penetration, Softening Point, Elastic Recovery, and Viscosity tracking.



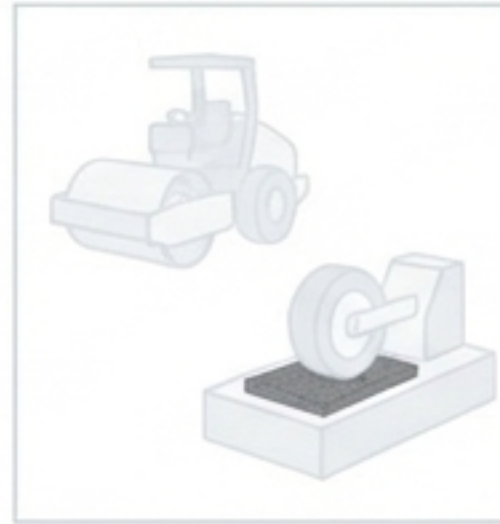
Storage Stability

Ensuring the polymer network resists separation from the bitumen during high-temperature transport to the site.



Rheological Testing (Superpave)

Dynamic Shear Rheometer (DSR) analysis mapping critical rutting and fatigue parameters.



Mixture Performance

Marshall Stability and Hamburg Wheel Tracking (HWT) to simulate real-world, heavy-traffic rutting conditions.

Storage, Handling & Operational Safety

Packaging Formats



Flexible supply scaling.
Available in standard
20KG/BAG for precise manual
dosing, and heavy-duty
500KG/BAG formats for
automated plant feeding.

Storage Conditions



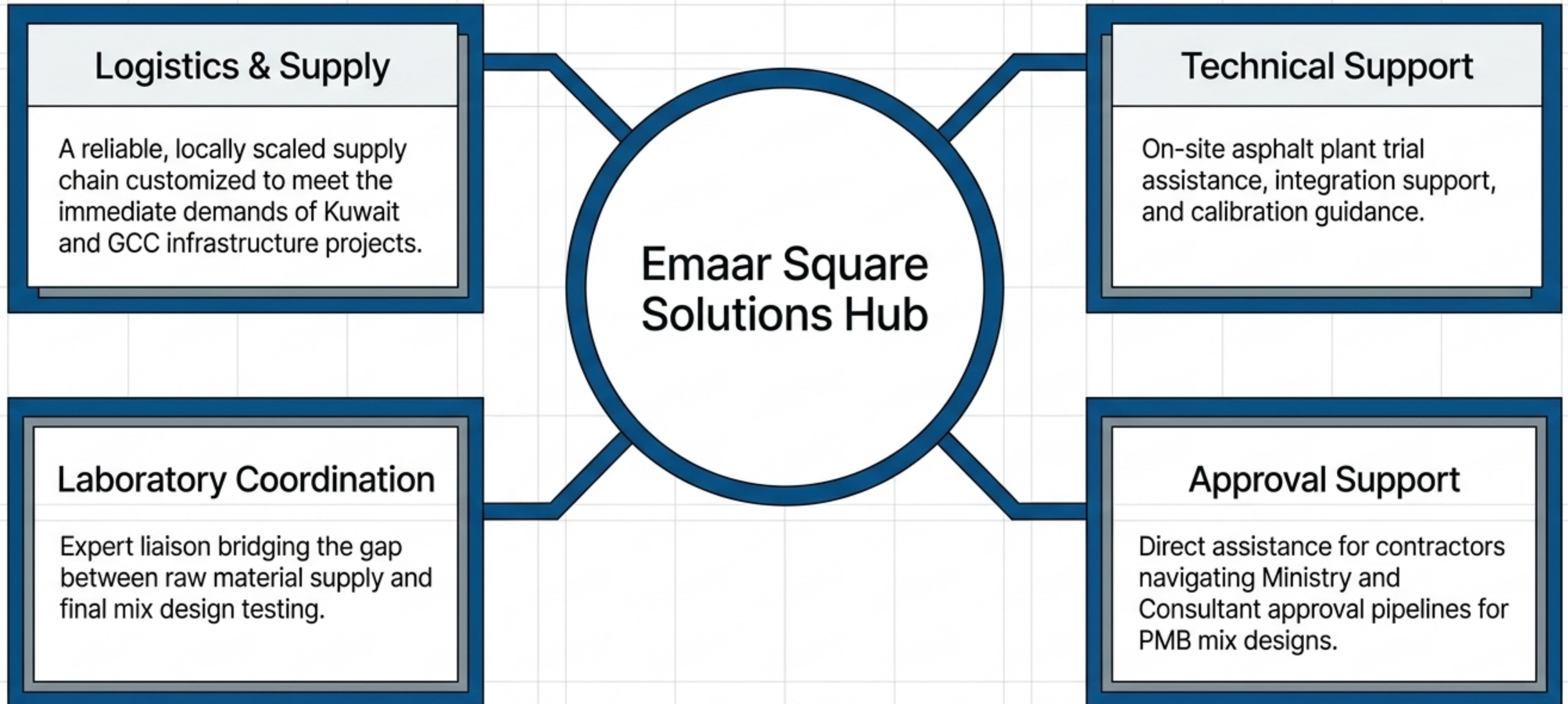
Store in a cool, dry,
well-ventilated facility.
Material must be kept away
from direct sunlight, excessive
heat sources, and open flames
to preserve polymer integrity.

Handling & PPE



Routine handling requires
appropriate Personal
Protective Equipment (PPE).
Protective gloves and eye
protection are mandatory to
prevent mechanical irritation
from dust or pellets.

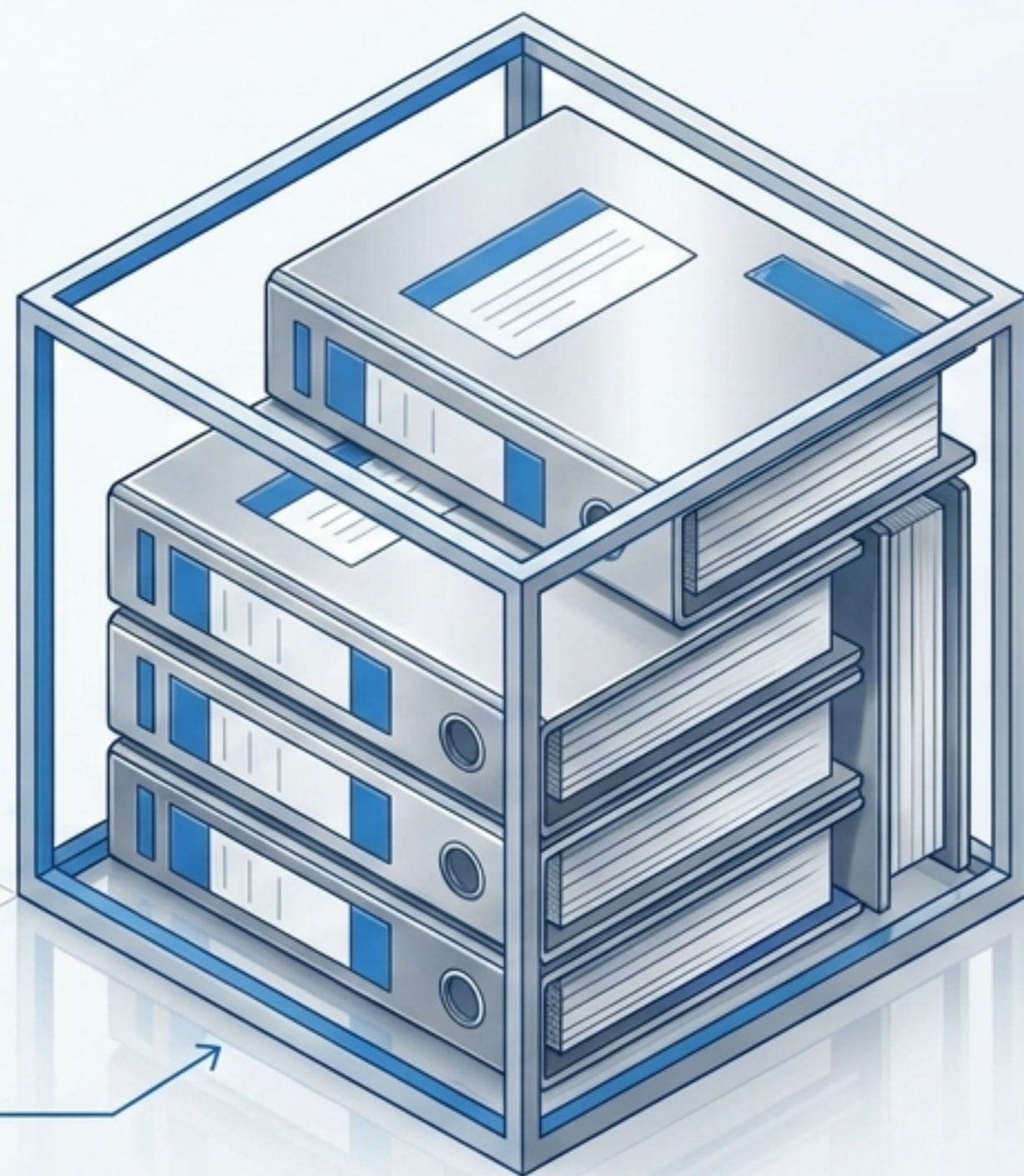
The Emaar Square Value Proposition



Comprehensive Project Compliance

Transparency and traceability are guaranteed. Emaar Square provides a complete technical and commercial documentation suite for every delivery:

- ✓ Technical Data Sheets (TDS)
- ✓ Safety Data Sheets (SDS)
- ✓ Certificates of Analysis (COA) per batch
- ✓ Product Reference Documentation
- ✓ Independent Test Reports (Available upon request)
- ✓ Ministry/Consultant Approval Documentation (Project-specific)





Global Excellence, Local Reliability

By partnering exclusively with elite International Manufacturing Partners, Emaar Square secures consistent, uninterrupted access to premium grade CH332 polymer.



Unwavering Consistency

Rigorous quality control guarantees identical batch-to-batch polymer performance.



Unmatched Scale

Massive production capacity readily supports multi-year mega-projects without supply bottlenecks.



Optimized Logistics

Strategic routing ensures seamless, on-time delivery directly into Kuwait and the broader GCC paving network.



Securing the Future of Infrastructure

SBS CH332 is a top-tier radial block copolymer modifier. Delivered through Emaar Square's robust supply network, it ensures producers and contractors can engineer high-performance, resilient PMB that decisively exceeds the demanding climatic and heavy-traffic requirements of modern road networks.

Emaar Square Company for General Trading & Contracting
Address: Kuwait - Aldajeej - Waha Mall - Office No.7
Email: Ahmed@emaarkw.com, info@emaarkw.com
Tel: +965 24331414 Fax: +965 24336315
Mobile: +965 9749 9042