Penetration Bitumen 60/70

Product abbreviation: PN-PB6070 | **Product family:** Paving Grade Bitumen

Appearance	Black to dark brown, viscous thermoplastic binder (solid/semi-solid at ambient temperature depending on climate).
Typical HS Code	2713.20 (petroleum bitumen)
Typical CAS	8052-42-4 (asphalt/bitumen)
Transport status	Not classified as dangerous goods for transport when shipped as solid or at regulated temperatures; hot product handling precautions apply.

Product description

PN-PB6070 is a refinery-produced penetration grade bitumen engineered for asphalt paving and industrial applications where a mid-hard binder is required. The grade is defined by a penetration range of 60-70 (0.1 mm) at 25°C, delivering a balanced combination of stiffness, workability, and temperature susceptibility suitable for a wide range of climates and traffic levels.

Typical applications

• Hot Mix Asphalt (HMA) for highways, urban roads, and airports (subject to project design).
• Asphalt base and binder courses, wearing courses, and patching mixes.
• Asphalt emulsions and cutbacks (when processed by approved facilities).
• Industrial uses such as mastic asphalt, bituminous membranes, and bitumen-based compounds (as applicable).

Key performance attributes

• Consistent penetration and softening point for predictable mix behavior.
• Good adhesion to mineral aggregates when used with appropriate anti-stripping systems if required.
• Low impurity content and high solubility, supporting durable binder performance.
• Thermoplastic behavior enabling reheating and blending under controlled conditions.

Typical technical properties

Property	Test method	Unit	Specification (typical)	Typical value*
Penetration @25°C, 100 g, 5 s	ASTM D5 / EN 1426	0.1 mm	60-70	65
Softening point (Ring & Ball)	ASTM D36 / EN 1427	°C	48-56	50-52
Ductility @25°C	ASTM D113	cm	≥ 100	≥ 100
Flash point (COC)	ASTM D92	°C	≥ 230	≥ 250
Solubility in trichloroethylene	ASTM D2042	% mass	≥ 99.0	≥ 99.5
Specific gravity @25°C	ASTM D70	-	Report	1.03
Loss on heating (TFOT), 163°C, 5 h	ASTM D1754	% mass	≤ 0.2	0.10
Retained penetration after TFOT	ASTM D5	% of original	≥ 54	≥ 60
Increase in softening point after TFOT	ASTM D36	°C	≤ 11	≤ 6

*Typical values are provided for guidance and may vary by crude source, refinery process, and production lot. A Certificate of Analysis (COA) is issued per shipment upon request.

Packaging and delivery

Available in bulk (road tanker/bitumen carrier), steel drums (typically 150-180 kg net), and bag-in-box or bitubags (commonly 300 kg or 1 MT, subject to availability). Packaging, net weight, and palletization can be customized for your project and destination requirements.

Storage, heating, and handling

Store in clean, dry tanks or containers away from water and oxidizing agents. When heating, use indirect heating systems (thermal oil/steam) and avoid localized overheating. Typical handling temperatures for paving operations often fall in the 140-170°C range depending on plant design, aggregate moisture, and mix specification. Do not overheat or hold at elevated temperature longer than necessary to minimize aging.

Health, safety, and environment

Bitumen is handled hot and can cause severe burns. Use suitable PPE including heat-resistant gloves, face protection, long sleeves, and safety footwear. Provide adequate ventilation where fumes may accumulate. Prevent contact with water during loading/unloading to avoid foaming and splashing. Refer to the Safety Data Sheet (SDS) for detailed hazard and first-aid information.

Regulatory and quality statement

PN-PB6070 is produced under controlled refinery and quality procedures. Each batch is tested using standardized methods (e.g., ASTM/EN) to confirm conformance with the agreed specification. This TDS does not replace project specifications; for critical applications, performance grading and mix design should be confirmed by the project laboratory.

Document control

Document	TDS - Penetration Bitumen 60/70
Product abbreviation	PN-PB6070
Revision date	2026-02-09
Validity	Until replaced by a newer revision

Disclaimer: The information in this TDS is based on typical properties and is intended for guidance. Actual values may vary. Petro Naft assumes no liability for use outside the agreed specification or for improper handling.