

TECHNICAL DATA SHEET (TDS)

OXIDIZED BITUMEN 75/25

1. Product Introduction

Oxidized (Blown) Bitumen Grade 75/25 is produced from selected vacuum bottom (VB) feedstock through a controlled air-blowing process at elevated temperature. This process increases the softening point, reduces penetration, and improves the product's heat resistance, hardness, and dimensional stability compared with conventional bitumen.

PETRO TAR CO. Grade 75/25 is manufactured without the addition of Gilsonite, resulting in a high-purity oxidized bitumen with consistent composition, controlled physical properties, and reliable batch-to-batch quality.

The designation "75/25" indicates a nominal softening point of 75°C and a nominal penetration of 25 dmm.

2. Product Applications

Oxidized Bitumen Grade 75/25 combines a relatively high softening point with controlled penetration, hardness, adhesion, and resistance to heat, moisture, and deformation. These characteristics allow the product to serve as a binder, coating component, sealing material, impregnation medium, or insulating compound in a variety of industrial and construction formulations.

Typical applications include:

- **Roofing and waterproofing systems:** Used in roofing felts, waterproofing sheets, membranes, and related bituminous products where controlled hardness and thermal stability are required.
- **Pipeline and metal protection:** Used as a component of protective and anti-corrosion coating systems for steel pipelines, water lines, tanks, and selected metal structures requiring resistance to moisture and elevated temperatures.
- **Industrial mastics and sealants:** Used in hot-applied mastics, caulking compounds, and sealants requiring good adhesion, hardness, controlled flow, and resistance to softening or deformation at elevated temperatures.
- **Civil engineering and underground waterproofing:** Used in foundation protection, concrete waterproofing, underground structures, hydraulic works, joints, and other applications requiring an effective moisture barrier.
- **Bituminous paints and protective coatings:** Incorporated into asphaltic paints, primers, industrial waterproofing products, and protective coating formulations where adhesion, water resistance, and durability are required.
- **Impregnation and insulation products:** Used in selected impregnation, sealing, and insulating formulations for industrial and electrical applications where the required thermal and moisture-resistance characteristics are specified.



PETRO TAR KIMIYA CO. (PETRO TAR CO.)

REFINERY: No.3943 , Sousan 2 St., Molasadra Blv., Aboureyhan Blv.,
Eshtehard Industrial park, Tehran, IRAN
Tel: (+98263) 7776830-3 Fax: (+98263) 7776834
WWW.PETROTARCO.COM

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- **Paperboard and industrial composite products:** Used in selected bitumen-impregnated paperboard, industrial board, rubber, polymer, and composite formulations requiring increased stiffness, water resistance, or dimensional stability.
- **Battery-related applications:** Used in selected battery insulation and sealing formulations where a hard, adherent, and electrically insulating bituminous material is specified.
- **Marine and offshore applications:** Used in selected waterproofing, sealing, protective coating, and moisture-barrier formulations designed for suitable marine, coastal, and offshore environments.
- **Textile and carpet-related applications:** Used in selected backing, impregnation, coating, and moisture-protection formulations where bituminous materials are specified.
- **Automotive and acoustic applications:** Used in selected underbody protection, sealing, vibration-control, and sound-damping formulations.

Beyond these applications, Oxidized Bitumen Grade 75/25 may be incorporated into specialized formulations across construction, infrastructure, chemical, electrical, automotive, marine, textile, and other industrial sectors. The suitability and performance of the product depend on the formulation design, processing conditions, substrate characteristics, operating environment, and specific end-use requirements.

Note: Final grade selection should be confirmed against the technical requirements and applicable standards of the intended application.

3. Standard Technical Specifications

SPECIFICATION OF OXIDIZED BITUMEN 75/25

Description	Specification	Test Method
Specific Gravity @ 25/25°C	1.05 approx.	ASTM D70
Penetration @ 25°C	20–30	ASTM D5
Softening Point, °C	70-80	ASTM D36
Ductility @ 25°C	1.5 min	ASTM D113
Loss on Heating, wt.%	0.2 max	ASTM D6
Flash Point, °C	250 min	ASTM D92
Solubility in CS ₂ , wt.%	99.0 min	ASTM D4

The values above represent the standard production range for Oxidized Bitumen Grade 75/25. Exact test results for each shipment are provided in the Certificate of Analysis (COA) for the relevant production batch and supplied with the consignment.



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4. Appearance and Physical Form

Appearance	Black, solid and brittle at ambient temperature; becomes viscous and adhesive when heated.
Odor	Characteristic bituminous (mild hydrocarbon) odor
Solubility in Water	Insoluble

5. Packaging, Storage, and Transport

Standard Packaging	25 Kg carton box, 25 Kg Kraft bag, 25 Kg Meltable Polyamide bags
Storage Conditions	Dry, cool, covered area, away from heat sources and direct sunlight
Shelf Life	No specific expiration date is assigned when the product is stored under recommended conditions, in intact and properly sealed original packaging. The product is expected to maintain its specified properties for an extended period
Transport	Suitable for road, rail, and sea transport as general packaged cargo at ambient temperature

6. Quality Assurance

Each shipment produced by PETRO TAR CO. undergoes quality control testing in accordance with the relevant ASTM standards prior to dispatch, and is accompanied by a Certificate of Analysis (COA). Custom grade production according to the buyer's specific technical requirements is also available upon request.

7. Other Information

Date of Issue	2024-04-18
Revision Number	2.0
Prepared By	Quality Control— PETRO TAR CO.

The technical information in this data sheet reflects the standard production range for Grade 75/25 and is intended for general product guidance only; refer to the Certificate of Analysis (COA) of the relevant batch for exact specifications of each shipment. For product safety information (MSDS/SDS), a separate document is available.



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