

Meraj Oil



COMPANY PROFILE

میراج
شرکت نفت



Meraj Oil COMAPNY PROFILE

Meraj Oil Company is established in Tehran Iran and registered in central registration department of Iran country in year (1399)



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ABOUT OUR COMPANY

Meraj Oil Company was established in Tehran, Iran, and officially registered with the Central Registration Department of the Islamic Republic of Iran in 2020 (1399SH).

Meraj Oil Company, equipped with an advanced production line for manufacturing high-quality standard bitumen on a large scale, plays a significant role in Iran's standard bitumen market by meeting domestic demands and exporting to bitumen importing countries.

Meraj Oil Company was established with the objective of enhancing domestic production, expanding the export of petroleum and petrochemical products, and creating employment opportunities for Iran's talented youth.

With faith in Almighty God and reliance on the expertise of our nation's professionals, we strive for the development and prosperity of this sacred land, seeking to alleviate the challenges of our beloved country through unwavering effort and perseverance.



The strategies and goals of this group focus on the production and export of bitumen in full compliance with international standards, as well as the supply of various fossil fuels such as diesel D2 (5000ppm), gasoline, light and heavy crude oil, LPG, fuel oil, and other related petroleum products.





WORKING POLICY

Meraj Oil Company is a non-governmental, non-political, and non-profit organization that conducts its activities in accordance with established business principles and regulations.

MISSION STATEMENT

- ✓ To provide top-quality goods and services on time and at competitive market prices.
- ✓ Recognizing that customer satisfaction requires a continuous understanding of our customers' expectations at all times.
- ✓ Accepting the fact that our reputation for honesty, quality, and service is fundamental to our continued business success, we shall always remember that our customers deserve nothing less than the best value we can provide — today, tomorrow, and always.



Scope of Services

- ✓ Meraj Oil Company is actively engaged in the trading, supply, and export of petroleum and petrochemical products, including various grades of bitumen, crude oil, fuel oil, diesel (D2–5000ppm), gasoline, and LPG.

The company's commercial division operates with a focus on reliability, quality, and long-term partnerships, ensuring the efficient delivery of energy products to both domestic and international markets in accordance with global standards.

- ✓ Meraj Oil Company operates as a reliable EPC Contractor (Engineering, Procurement & Construction), providing complete solutions for bitumen, oil, and petrochemical plants.

Our engineering division is capable of delivering turnkey projects — including design, procurement, fabrication, installation, and commissioning of production units from small modular configurations to large scale industrial complexes.

Every project is executed under stringent international safety, quality, and environmental standards, ensuring efficiency, durability, and long term operational reliability.

OUR PRODUCTS

Meraj Oil produces and exports multiple grades of bitumen and supplies diverse petroleum fuels and products worldwide.

1- BITUMEN

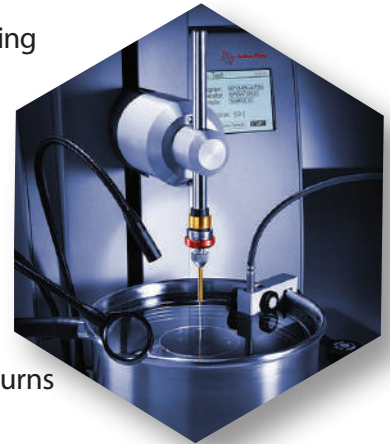


Meraj Oil Company is a trusted supplier of Bitumen in various penetration grades, including 40/50, 60/70, and 80/100, as well as asphalt and sulphur-based bitumen.

The company provides flexible packaging options to meet global market requirements:

- * Standard Steel Drums: 180kg Net / 190kg Gross weight.
- * Custom Drums: 150kg Net weight, tailored for specific markets such as Bangladesh.
- * Jumbo Bags: 1 MT Net weight for bulk shipments.

Depending on seasonal conditions, shipments are loaded in 20ft containers during cold months and 40ft containers during hot seasons, ensuring optimal logistics and product quality preservation.



(a)-Penetration grades

In the past, the penetration index of bitumen was defined under the assumption that its thermal sensitivity was negligible. However, bitumen is a thermoplastic material, which becomes pliable or moldable at elevated temperatures and returns to a solid state when cooled.

Penetration-grade bitumen is primarily used in road surfacing and asphalt paving. Lower penetration grades (harder bitumen) are preferred in warm climates, while higher penetration grades (softer bitumen) perform better in colder regions.

Meraj Oil Company produces and supplies various penetration grades of road surfacing bitumen — fully compliant with national and international standards (ASTM / EN) — at its Aradan Refinery, Semnan Province. The penetration classification is determined by penetration and softening point tests, in accordance with European specifications. The following table summarizes the key physical properties of penetration-grade bitumen. Over the past decades, the road construction industry worldwide has increasingly favored high-consistency solid bitumen, which enhances asphalt durability and performance.



OUR PRODUCTS

(b)-Cutback bitumen

Cutback bitumen is produced by adding controlled amounts of petroleum distillates such as kerosene or naphta to pure bitumen in order to reduce its viscosity and improve workability at low temperatures.

The type and quality of cutback bitumen depend on the nature and quantity of the solvent used. A higher solvent content results in lower viscosity and faster setting properties.

Cutback bitumen is mainly used in road construction and surface treatment projects particularly where heating equipment is not readily available, or where safety concerns, fire risk, or temperature sensitivity make heating impractical.

Medium-Curing (MC) grades are the result of dissolving pure bitumen into kerosene, and are widely applied for prime coating and surface dressing.

According to viscosity and setting rate, cutback bitumen is divided into three main categories:

- Rapid-Curing (RC) — fast-drying, high volatility
- Medium-Curing (MC) — moderate evaporation rate
- Slow-Curing (SC) — longer setting time and deeper penetration



Cationic Emulsions		
CSS	CMS	CRS
CSS -1	CMS -1	CRS -1
CSS -1h	CMS -2h	CRS -2

Tips:

a. C stands for Cationic.

b. The letters and numbers follow the same designation pattern as **anionic emulsions**.

(c)-Emulsions

Bitumen emulsions are two-phase systems composed of bitumen, water, and specific additives designed to facilitate emulsification, enhance stability, and adjust performance properties.

In these systems, bitumen is dispersed within the aqueous phase as discrete globules—typically ranging between 0.1 to 50 microns in diameter—suspended through electrostatic stabilization provided by an emulsifier.

According to their electrical charge characteristics and stabilization method, bitumen emulsions are categorized into four primary classes, among which the first two are the most widely utilized in road construction and maintenance:

- Cationic emulsions
- Anionic emulsions
- Non-ionic emulsions
- Clay-stabilized emulsions



OUR PRODUCTS

(c)-Emulsions

The terms anionic and cationic arise from the electrical charges carried by the bitumen globules within the emulsion. This identification system reflects one of the fundamental principles of electrostatics—like charges repel, whereas unlike charges attract.

When an electrical potential is applied between two electrodes immersed in an emulsion containing negatively charged bitumen particles, these particles migrate toward the anode; such an emulsion is classified as anionic.

Conversely, in a system where positively charged bitumen particles are present, they migrate toward the cathode, designating the emulsion as cationic.

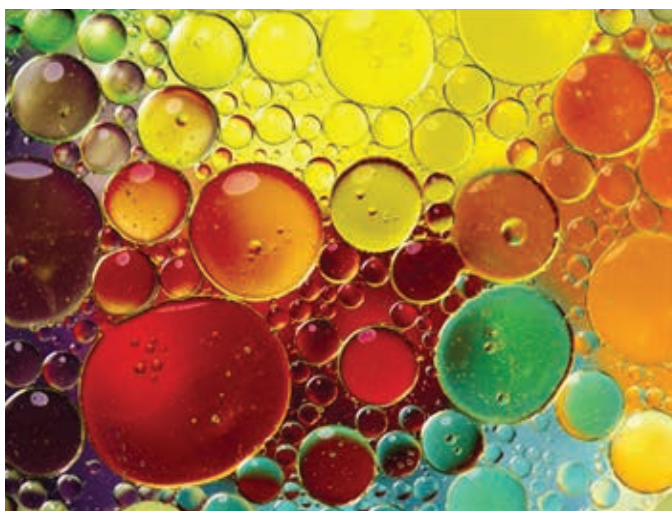
In the case of non-ionic emulsions, the bitumen globules are electrically neutral, hence they do not move toward either electrode. These types of emulsions are rarely used in practice.

Based on their setting behavior, bitumen emulsions are further divided into three major categories:

- Rapid-setting (RS)
- Medium-setting (MS)
- Slow-setting (SS)

Anionic Emulsions

These emulsions, which carry negative charge, are divided into the following categories:



Anionic Emulsions		
RS	MS	SS
RS -1	MS -1	SS -1
RS -2	MS -2	SS -1h
HFRS -2	MS -2h	
	HFMS -1	
	HFMS -2	
	HFMS -2h	
	HFMS -2s	

Tips:

- a. HF, which stands for high-float, indicates the bitumen coating of aggregates
- b. Number 1 and 2 show respectively low and high percentage of pure bitumen in the emulsions
- c. H indicates the use of pure bitumen in emulsion
- d. S indicates the usability of bitumen for mixing with sand materials.

OUR PRODUCTS

(d)-VG bitumen

Bitumen is graded based on its viscosity characteristics, which determine its flow behavior under specific temperature conditions. The grading may be defined by absolute viscosity at 60 °C or kinematic viscosity at 135 °C, depending on the testing method applied. The SI physical unit of dynamic viscosity is Poise (P).

The kinematic viscosity is expressed in centistokes (cSt).

Pure bitumen is graded according to international specifications such as AASHTO M266 and ASTM D3381, which define the viscosity ranges and performance limits at these reference temperatures.



Technical Specifications of Pure Bitumen Based on Viscosity at 60 °C (AASHTO-M226)

Viscosity					Test
AR-160	AR-80	AR-40	AR-20	AR-10	
15000±4000	8000±2000	4000±1000	2000±500	1000±250	Viscosity at 60 °C
550	400	275	200	140	Viscosity at 135 °C
20	20	25	40	65	Penetration at 25 °C, 100 grams, five seconds
52	50	45	40	-	Penetration at 25 °C, 100 grams, five seconds, minimum
75	75	75	100**	100**	Ductility at 25 °C, 5cm/min
Test on Primary Bitumen					
238	232	227	219	205	Flash point, Cleveland open cup
99/0	99/0	99/0	99/0	99/0	Solubility in trichloroethylene

AASHTO T340 may be used but as a comparing method.

** If the ductility is less than 100 at 25 °C, the material will be accepted if its ductility at 15.0 °C is more than 100 cm at a pull rate of 5 cm/min.

Technical Specifications of Pure Bitumen Based on Viscosity at 60 °C (AASHTO-M226)

Viscosity						Test
AC-40	AC-30	AC-20	AC-10	AC-5	AC-2.5	
4000±800	3000±600	2000±400	1000±200	500±100	250±50	Viscosity at 60 °C
400	350	300	250	175	125	Viscosity at 135 °C
40	50	60	80	140	220	Penetration at 25 °C, 100 grams, five seconds
232	232	232	219	177	163	Flash Point, Cleveland open cup
99/0	99/0	99/0	99/0	99/0	99/0	Solubility in trichloroethylene
Test on the residue of thin bitumen layer						
0/5	0/5	0/5	0/5	1/0		Heating loss
16000	12000	8000	4000	2000	1000	Viscosity at 60 °C
25	40	50	75	100	100	Ductility at 25 °C, 5cm/min
Stain Test						
Negative					Naphtha Solvent	
Negative					Naphtha-Xylene Solvent, Xylene Percentage	
Negative					Naphtha-Xylene Solvent, Xylene Percentage	

(1) If the ductility is less than 100 at 25 °C, the material will be accepted if its ductility at 15.0 °C is more than 100 cm at a pull rate of 5 cm/min.

(e)-Performance grade (PG)

From October 1987 to March 1993, Strategic Highway Research Program (SHRP) was conducted in the United States. The program was focused on the development of new methods for assessing the performance of bitumen binders. The research resulted in the development of a new method known as Superior Performing Asphalt Pavements (Super pave).

The main specifications of this method included:

- * Using the efficiency criterion for bitumen binders and asphalt concrete
- * Considering climatic conditions in application of bitumen

The problems studied in this method are as follows:

- * Winter low-temperature bitumen cracking not related to loading
- * Bitumen fatigue cracking due to loading
- * Summer high-temperature bitumen deformation due to loading

OUR PRODUCTS

(e)-Performance grade (PG)

The primary objective behind establishing the new specifications was to facilitate the procurement of higher-quality bitumen products, since these specifications clearly define the product for potential buyers. In addition, the new criteria ensure the proper performance of bitumen in coating and pavement applications. Climatic conditions play a crucial role in the efficiency of asphalt coatings; however, due to similar weather patterns across regions and limited research time, this aspect had previously received little attention. Moreover, research results would lack precision if the loading factor were not considered. Today, bitumen producers worldwide have started manufacturing this new generation of binders, among whom POC is recognized as one of the pioneers. By implementing SHRP testing systems, MerajOilCompany is fully capable of supplying bitumen products to its customers based on the PerformanceGrading (PG) methodology. It is worth noting that, in the past, penetration grading served as the primary method of classification. While PerformanceGrading (PG) focuses on the mechanical and functional behavior of bitumen, the Penetration Grade system is limited to empirical laboratory parameters. In Iran, the penetration system is still more common; however, in certain applications, the PG system provides superior performance and durability. Under this approach, each PG grade is defined—both for polymer-modified and unmodified (pure) bitumen—according to the climatic and temperature conditions of the intended application site. A wider PG range indicates a bitumen with higher thermal-mechanical resistance and enhanced performance characteristics. MerajOilCompany, having complete production capability for all PG-graded binders, has also undertaken a comprehensive climate zoning study of Iran to determine the most suitable bitumen grade for each geographical region of the country.

High Temperature Performance	Low Temperature Performance
PG 46	-46, -40, -34
PG 52	-46, -40, -34, -28, -22, -16, -10
PG 58	-40, -34, -28, -22, -16, -10
PG 64	-40, -34, -28, -22, -16, -10
PG 70	-40, -34, -28, -22, -16, -10
PG 76	-34, -28, -22, -16, -10
PG 82	-34, -28, -22, -16, -10

2-oil products

(a)-Light crude oil

Light crude oil is a type of liquid petroleum characterized by low density, low viscosity, and high API gravity, resulting from a high proportion of light hydrocarbon fractions. It typically contains negligible wax content and remains free-flowing at ambient temperature. Because light crude yields a greater percentage of gasoline and diesel during the refining process, it commands a higher market value compared to heavy crude oils.



OUR PRODUCTS

(b)-Heavy crude oil

Heavy crude oil is a form of liquid petroleum with higher density and specific gravity than light crude oil. It is technically defined as any petroleum liquid with an API gravity of less than 20°. Owing to its higher viscosity and lower proportion of light hydrocarbon fractions, heavy crude requires more complex refining processes to convert into lighter petroleum products such as gasoline and diesel.



(c)-Diesel D2

Gas oil is a middle-distillate fuel commonly known as red diesel, named after the red dye marker introduced in the 1960s to help authorities easily identify vehicles operating on this fuel.

Chemically, red diesel and white diesel (also referred to as road diesel or simply diesel) are essentially the same product; however, they differ significantly in terms of taxation and legal usage.

White diesel, available at retail filling stations for on road vehicles, is taxed at a higher rate comparable to gasoline, whereas red diesel (gas oil) is subject to a much lower fuel duty, reflecting its intended use in off-road machinery, industrial equipment, and agricultural applications.



(D)-benzine

Benzene is a fundamental petrochemical building block and serves as the starting material for a wide variety of derivatives used in numerous industrial applications.

Together with ethylene, benzene is used to produce styrene, the monomer required for manufacturing polystyrene. It is also a key feedstock in the production of cyclohexane, which is further processed into caprolactam—the primary raw material for nylon manufacturing.

These well known commodity chemicals, including polystyrene and nylon, are in turn employed in the production of everyday goods such as clothing, paints, computer housings, automotive components, and packaging materials.



OUR PRODUCTS

(e)-Mazut

Residual Fuel Oil is a heavy petroleum product often derived from Russian or other high-sulfur crude oil sources. It represents the remaining fraction after the distillation and cracking of lighter hydrocarbons. Depending on the required application, it may be blended with lighter petroleum fractions to optimize viscosity and combustion characteristics or burned directly as a fuel in large industrial boilers, marine engines, and power plants.



3-Gas products

Supplier of various gas products such as LPG



bitumen price

MerajOilCompany produces a full range of viscosity-graded and penetration-graded bitumen suitable for road construction, waterproofing, and industrial applications. The company's standard production grades include:

10/20,20/30,30/40,40/50,60/70,80/100,85/100,90/130,and160/220.

Bitumen is supplied according to FAS or FOB terms at Iran's southern export ports. Due to the high global demand for MerajOil-embossed drums, there is often a waiting list for orders, which may influence market pricing.

For large-volume buyers, bulk shipment and external packing can offer more economical solutions compared with direct embossed drum purchases.

MerajOilCompany is recognized among Iran's leading bitumen manufacturers, capable of producing Bitumen60/70 and80/100 with consistent quality that meets ASTMandENstandards. The company also provides custom packaging and international export services, ensuring reliable supply for contractors and distributors worldwide.

For quotations or technical data sheets, please contact our export department through the official communication channels.



OUR Services

- ✓ Execution of all storage and processing operations of petrochemical, oil and gas products.
- ✓ Execution of all installation, construction, engineering, support, installation, commissioning, operation, maintenance and management of oil, gas and petrochemical projects inside and outside the country.
- ✓ Execution of all installation, construction, engineering, support, installation, commissioning, operation, maintenance and management of oil, gas and petrochemical projects inside and outside the country.
- ✓ Use of financial and credit facilities of domestic and foreign banks and credit institutions.
- ✓ Warehousing, packaging, distribution and sale of oil, gas and petrochemical products and construction of export stations.
- ✓ Import, export of petrochemical, oil and gas products and other oil, gas and petrochemical products.
- ✓ Buying and selling stocks, Participation in energy development banks, oil, gas and petrochemical.
- ✓ Research institutes and energy exchange of crude oil and oil, gas and petrochemical Products and related companies.
- ✓ Providing other technical, managerial, executive and financial services to investable legal entities.

OUR Services

- ✓ Obtaining branches and representation inside and outside the country in accordance with the effective laws of Islamic republic of Iran and selected country.
- ✓ Buy, sell, import and export all authorized goods and obtained a business card.
- ✓ The customs Clearance of goods from domestic, foreign and international
- ✓ Opening an account, documentary credit, facilities and credit in Rials and foreign currency, guarantees and remittances, Fines, Refines, with banks, financial institutions and domestic and foreign companies.
- ✓ Technology transfer from abroad to the country, design, engineering, procurement, implementation, and installation of all oil and gas and petrochemical projects and facilities and construction, geology and geophysics inside and outside the country.
- ✓ Feasibility study and technical and engineering calculations, economics and implementation of downstream projects of buildings, infrastructure facilities of docks.
- ✓ Providing technical services and management of engineering projects, purchase, construction and installation of logistics and supply of engineering and petrochemical equipment abroad.
- ✓ Participation in all private and government tenders and auctions inside and outside the country is concluding contracts with natural and legal persons in all areas of the company's activity.
- ✓ Identify investment opportunities in relation to the above paragraph in order to introduce them to investable legal entities.

OUR Services

- ✓ Study, engineering design and purchase and implementation and maintenance of all IT projects, databases and servers and new energies inside and outside the country.
- ✓ Design and engineering, purchase, installation and execution of installation projects, buildings, roads and interiors of buildings.
- ✓ Doing non-network and non-pyramid marketing and doing brokerage and royalties.
- ✓ Perform the following activities in relation to investable persons.
- ✓ Executive services in the supply and purchase of raw materials and machinery for invested legal entities.
- ✓ Basic design and engineering services and project guarantee for venture capitalists.
- ✓ Carrying out technological, technical, scientific, commercial and economic studies, researches and studies for exploitation by investable legal entities.
- ✓ Financing of investable legal entities from the internal resources of the company or through other sources, including obtaining bank facilities in the name of the company or the investable legal entity with collateral or guarantee of repayment through the company or without collateral or guarantee of repayment.
- ✓ Formulation of general, strategic and managerial policies of investable legal entities.

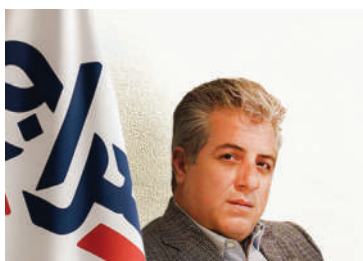
OUR TEAM



Hamed Ziaedini dashtkhaki

Chairman of the Board (C.O.B)

- * Master MBA in Financial Management.
- * Has a brilliant history in the country's oil and gas industry.



Mostafa Moradi

Chief Executive Officer (C.E.O)

- * 18 years of activity in the field of production of QC and R&D of bitumen and petroleum product



Adel Parsapour

Vice Chairman of the Board

- * Vice Chairman of the Board, Meraj Petrochemical Company
- * Member of the Board of Directors, Taban Oil & Gas Company



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