BHP

Bitumen Hormoz Pars

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- Production of high-quality bitumen grades: Cutback Bitumen, PG Grade, VG Grade, Pen Grade, and PMB
- Leading manufacturer and exporter
- Exclusive terminal at Shahid Rajaee Port, Bandar Abbas
- Direct feed supply from Bandar Abbas Refinery via pipeline
- Equipped with a modern and specialized laboratory, accredited by the Iranian Standards Organization and Customs Authority
- Holder of Class A Certificate from the Road, Housing, and Urban Development Research Center
- Having packaging infrastructure for drums (150 kg and 180 kg), Jumbo Bags (1000 kg, 1300 kg and 2000 kg) and Flexitanks

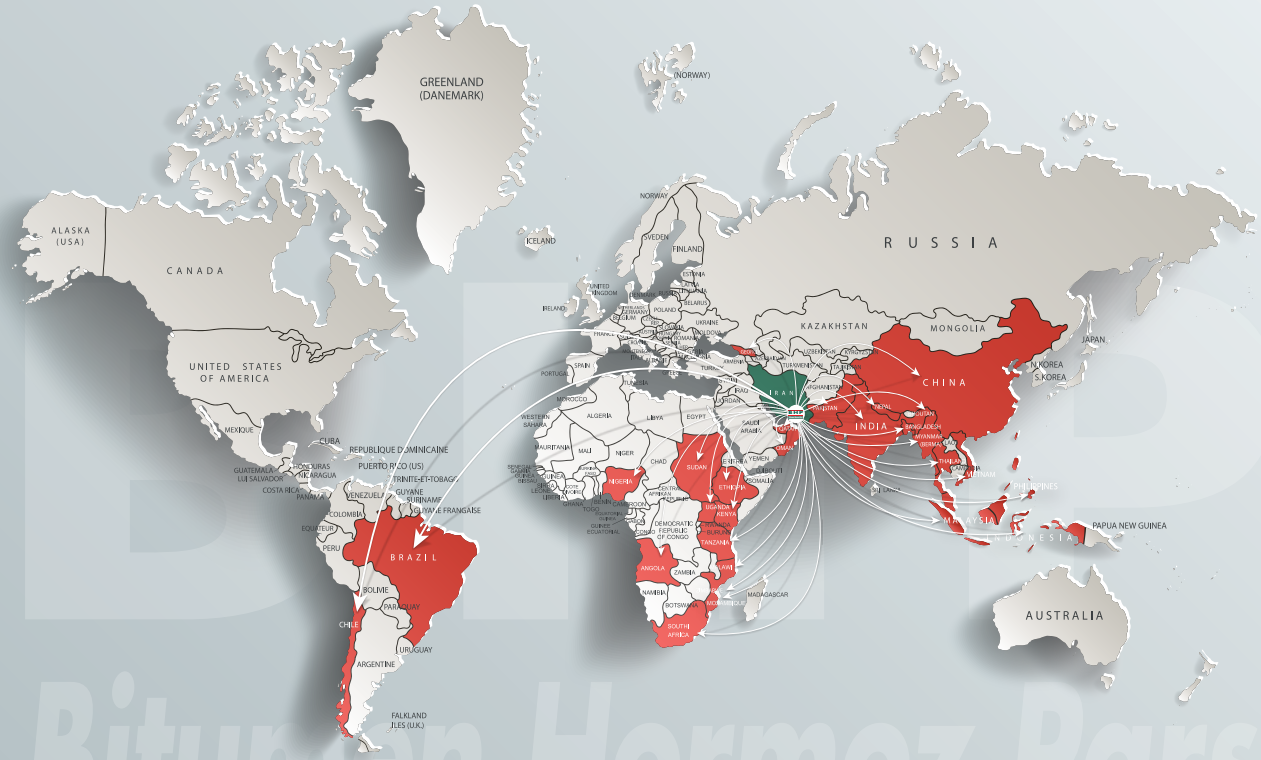
Bitumen Hormoz Pars

(Private Joint Stock Company)

Company Introduction:

This company was established in 2002 under the name “Fooman Shimi Gostar” and was rebranded in 2017 as “Bitumen Hormoz Pars (BHP)”. Since its establishment, the company has grown into one of the world’s leading producers and exporters of high-quality bitumen.

The company has a production capacity of 1.3 million tons of varioas grades of bitumen in various packaging formats tailored to customer needs. Enjoying production facilities and strategic terminal enables as to expert varioas bitumen grades with maximum efficienry and minimum service time.



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Drum
150 Kg and 180 Kg

Jumbo Bag
with Wooden Box
1000 Kg

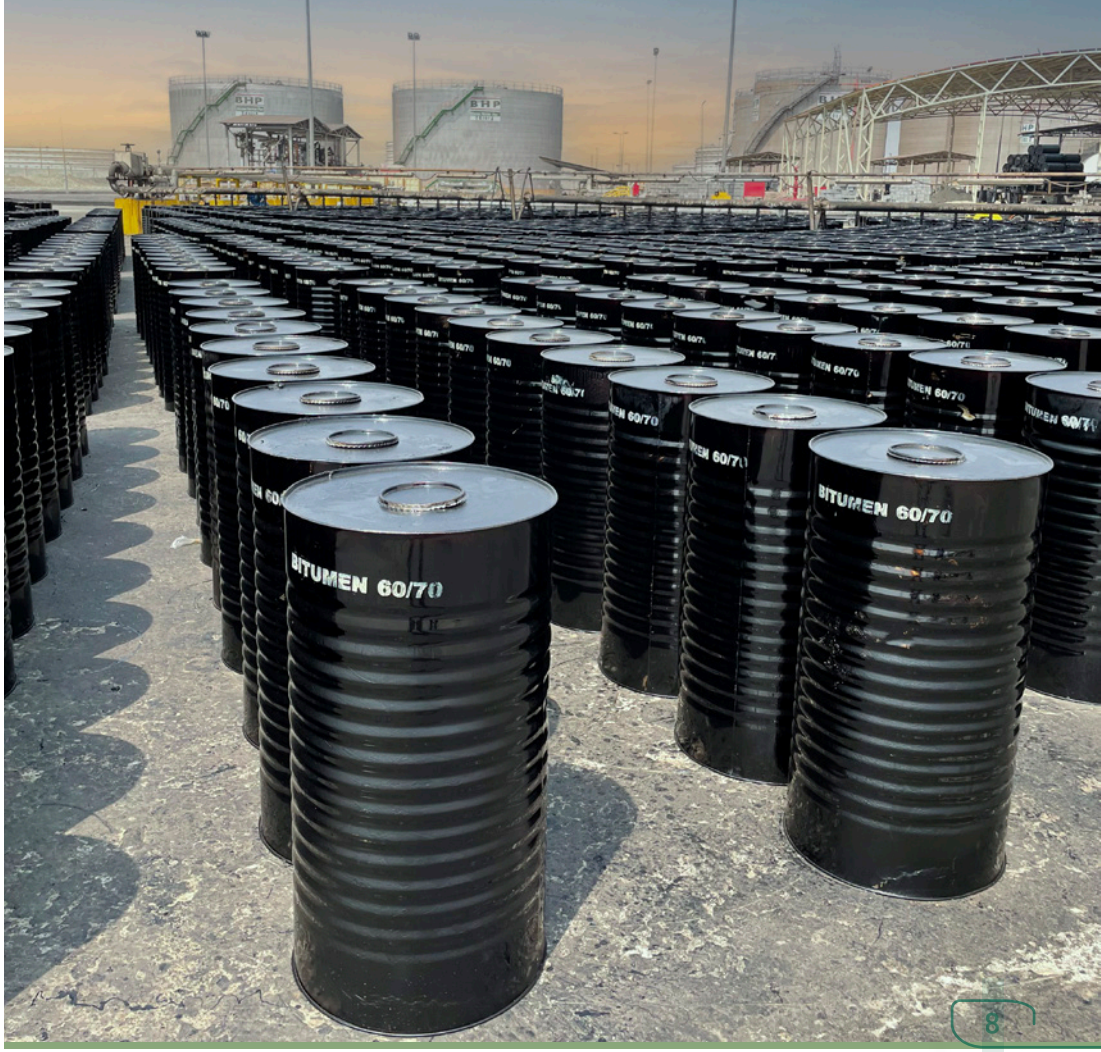
Jumbo Bag
1000 Kg

Jumbo Bag
1300 Kg

Jumbo Bag
2000 Kg

Flexitank

Bitutainer



Drum Packaging

Steel drums are one of the most common bitumen packaging options. Bitumen Hormoz Pars (BHP), with its dedicated drum manufacturing workshop, has the capability to produce and fill 150 kg and 180 kg drums with a monthly production capacity of 80,000 drums.

Test	150 KG bitumen Drum	180 KG bitumen Drum
Height (cm)	86 ± 2	98 ± 2
Diameter (cm)	50	50
Body Thickness (mm)	0.6 ± 0.02	0.6 ± 0.02
Top/Base Thickness (mm)	0.6 ± 0.02	0.6± 0.02
Net Weight (kg)	150± 2	182 ± 2
Gross Weight (kg)	158± 2	192 ± 2
Empty Drum Weight (kg)	8.5 ±1	9.5 ±1

Jumbo Bags

BHP has the capebility to fill jumbo bags in 1,000 kg and 1,300 kg sizes, with a monthly production capacity of 10,000 tons in a single shift. Each bag is equipped with two internal polymer layers to prevent leakage and two reinforced external layers to enhance durability.

Technical specification	
Net Filling capacity	1300 ±50 kg
Package height	130 cm
Package Wide	100 cm

Technical specification	
Net Filling capacity	1000 ±40 kg
Package height	110-115 cm
Package Wide	100-110 cm

Flexitank

Flexitank is a versatile and cost-effective packaging solution that provides flexibility and durability for transporting and storing bitumen. Its leak-proof structure prevents spills, and its optimized, space-efficient design ensures environmental benefits and cost savings. The packaging itself weight less than 100 kg, allowing a payload capacity of approximately 20 tons of bitumen.

Flexitank

Bitumen Hormoz Pars

Bulk Bitumen

The company's terminal in Bandar Abbas (Shahid Rajaee Port) is equipped with facilities for direct loading and discharging of bulk bitumen tankers. As the first and only private-sector company in the region, BHP successfully has loaded the largest-ever bulk bitumen shipment of 46,000 metric tons at its exclusive terminal in 2017.

Storage Capacity	10.500 MT	
Loading Rate	Min 175 MT/HR	
Specification of the berth (jetty)	Max draft (Meter)	7.5
	No.	56 & 57
	Length (Meter)	210

Laboratory Services

BHP's quality control laboratory, staffed with experienced experts and modern equipments, is one of the most advanced reference laboratories for bitumen in the country. It conducts comprehensive tests on all bitumen types while complying with ISO 9001 and ISO 17025 standards, acording to the latest revisions of INSO, ASTM, AASHTO, and BS EN standards.

Additionally, it has the necessary accreditations to serve as an official partner of the Iranian Standards Organization and customs of IRI reference laboratory in Iran.

Types of Bitumen

Penetration Grade Bitumen (Pen Grade)

This type of bitumen is classified based on penetration tests and softening point. Lower penetration grades are typically used in tropical regions, while higher penetration grades are suitable for cold climates.

Characteristics and Specifications: Based on ASTM D946Bitumen

Test	Method	30-40	40-50	60-70	85-100	200-300
Specific gravity @25/25C	ASTM D70	1/01-1/06	1/01-1/06	1/01-1/06	1/01-1/05	0.99-1/04
Penetration ,25°c,100g 5s	ASTM D5	30-40	30-40	60-70	85-100	200-300
Softening point °C	ASTM D36	55-63	55-63	49-56	45-52	32min
Ductility ,25°c,5Cm,Min/Cm/Min	ASTM D113	100	100	100	100	100
Flash Point °C/Min	ASTM D92	250	250	250	230	177
Solubility in trichloroethylene (%) Min	ASTM D2042	99.5	99.5	99.5	99.5	99.0
Spot test	AASHTTO102	Negative	Negative	Negative	Negative	Negative
Drop in penetration after heating%/Max	ASTM D5&D6	20	20	20	20	37
Loss on heating(%wt)/Max	ASTM D6	0.2	0.2	0.2	0.5	1

Viscosity Grade Bitumen (VG Grade)

In response to market demands for viscosity-based bitumen grading, VG bitumen is classified according to its viscosity at specific temperatures under standardized conditions.

Characteristics and Specifications: Based on ASTM D3381

	Viscosity Grade			
Test	AC-10	AC-20	AC-30	AC-40
Dynamic viscosity @60°c (poise)	1000±200	2000±400	3000±600	4000±800
Kinematic Viscosity @135°c(Cst) Min	250	300	350	400
Penetration ,25°c,100g 5s,Min	80	60	50	40
Flash Point °C	220	220	220	220
Softening point °C	40	45	47	50
Solubility in trichloroethylene (%) Min	99.0	99.0	99.0	99.0
Test on residue from thin film oven test	--	--	--	--
Ductility ,25°c,5Cm,Min/Cm/Min	75	50	40	25
Viscosity ratio @60°C Max	4.0	4.0	4.0	4.0

Performance Grade Bitumen (PG Grade)

Performance Grade bitumen is classified based on the highest and lowest recorded temperatures in each climatic zone, also road load-bearing capacity and traffic conditions.

BHP is able to supply bellow bitumen Performance grades:

High temperature degrees of efficiency	low temperature degrees of efficiency
PG 64	-10,-16,-22
PG70	-10
PG58	-16,-22

Cutback Bitumen

Cutback bitumen is a petroleum-based product made by diluting bitumen with hydrocarbon solvents such as kerosene, gasoline, or diesel to reduce its viscosity. Compared to standard bitumen, cutback bitumen can be sprayed at much lower temperatures. Once the solvent evaporates, the remaining bitumen hardens to a consistency similar to penetration-grade bitumen.

Cut Back Grade:	MC 30		MC 70		MC 250		MC 800		MC 3000	
Characteristic	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Kinematic Viscosity @60℃ (CST)	30	60	70	140	250	500	800	1600	3000	6000
Flash Point (℃)	38	-	38	-	66	-	66	-	66	-
Water Content Max (%VOL)	0.2		0.2		0.2		0.2		0.2	
190℃ (%VOL)	-	-	-	-	-	-	-	-	-	-
225℃ (%VOL)	-	35	-	25	-	25	-	-	-	-
260℃ (%VOL)	30	70	10	70	5	55	-	15	-	15
316 ℃ (%VOL)	75	95	65	93	60	90	15	75	15	75
Residue from Distillation to 360	50	-	55	-	67	-	80	-	80	-
Penetration @25℃ (0.1 mm)	120	300	120	300	120	300	120	250	120	250
Ductility @25℃ (cm)	100		100		100		100		100	
Solubility in TCE	99		99		99		99		99	
Dynamic Viscosity @60℃, Pa.s (After Distillation-Ps.s)	30	120	30	120	30	120	30	120	30	120

Polymer-Modified Bitumen (PMB)

Flexible pavements with asphaltic surface layers are extensively used in developed countries. The rapid increase in traffic volume, heavier commercial vehicle loads, extreme temperature fluctuations, and the limitations of pure bitumen performance have led to a significant rise in the use of polymer-modified bitumen (PMB) in recent years to improve pavement durability.

Asphalt mixtures require sufficient flexibility at low temperatures to prevent cracking and adequate stiffness at high temperatures to avoid rutting. Additionally, cohesion and adhesion properties are crucial to prevent fatigue-induced cracks.

Polymer-modified bitumen offers enhanced physical properties without altering the chemical composition of the bitumen itself.

Typically, if a bitumen's temperature differential in PG grading (AASHTO M320) exceeds 86°C, it must be modified. After modification with a suitable polymer, the PG+ method (AASHTO T322) is the preferred testing method. However, if this method is unavailable, the modified bitumen must meet the following criteria:

- Minimum elastic recovery of 70% (ASTM D6084)

- Compliance with separation resistance tests (ASTM D7173)

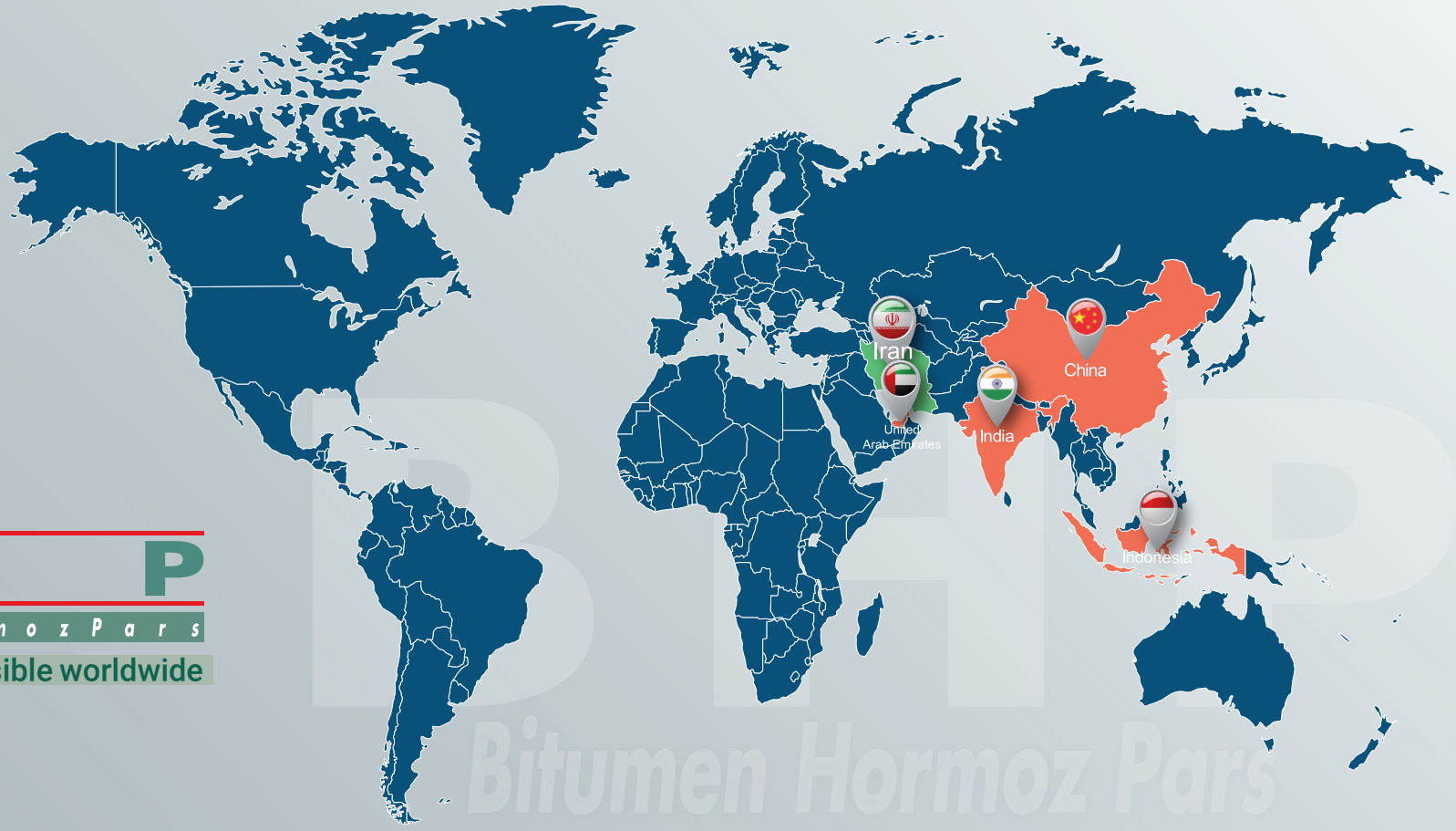
Special Modified Bitumen

Bitumen specifications vary by country. One of the most significant categories of special modified bitumen is the AH (Asphalt Hard) grade, which is predominantly used in China. AH grading is similar to Penetration Grade and Viscosity Grade systems. For example:

AH-70 is similar to Penetration Grade 60/70

AH-90 is similar to Penetration Grade 80/100

index	unit	grade	110	90	70	test method
Penetration(25℃, 5s,100g)	0.1mm		100~120	80~100	60~80	T0604
Applicable climate zones			2-1 2-2 3-2	1-1 1-2 1-3 2-2 2-3	1-3 1-4 2-2 2-3 2-4	
Penetration index PI		A	-1.5~+1.0			T0604
		B	-1.8~+1.0			
The softening point is not less than	℃	A	43	45 44	46 45	T0606
		B	42	43 42	44 43	
		C	41	42	43	
The dynamic viscosity at 60℃ is not less than	Pa.s	A	120	160 140	180 160	T0620
The ductility at 10℃ is not less than	cm	A	40	45 30 20 30 20	20 15 25 20 15	T0605
		B	30	30 20 15 20 15	15 10 20 15 10	
The ductility at 15℃ is not less than	cm	A B	100			
		C	60	50	40	
content (distillation method) is not greater than	%	A	2.2			T0615
		B	3.0			
		C	4.5			
Flash point	℃		230	245	260	T0611
Solubility is not less than	%		99.5			T0607
Density (15℃)	g/cm³		Actual measurement records			T0603
TFOT						T0610 & T0609
The quality change is not greater than	%		±0.8			
Residual ductility (25℃) Min	%	A	55	57	61	T0604
		B	52	54	58	
		C	48	50	54	
Residual ductility (10℃) Min	cm	A	10	8	6	T0605
		B	8	6	4	
Residual ductility (15℃) Min	cm	C	30	20	15	T0605



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BitumenHormozPars

Bitumen delivery is possible worldwide on CFR and CIF terms.

Our Branches / Offices

- Back Office
- Administration Facilities

www.BHPBITUMEN.com