



LOTUS ENERGY

CATALOG

www.lotusco.energy



About Us:

Lotus Energy, a private Iranian company, is a premier manufacturer of high-quality bitumen, offering a range of grades tailored to diverse industry needs. Equipped with advanced facilities and a highly skilled team, Lotus Energy has established itself as a leading force in the bitumen industry across Iran and the Middle East with a production capacity of 1000 metric tons per day. Committed to global standards and innovation, we focus on incorporating cutting-edge technologies in both production and export, ensuring quality and reliability at every step.



Our Products:

We offer a variety of bitumen grades to cater to different requirements:

1

Penetration Grades:

60/70, 80/100, 200/300 (low sulfur)

2

Chinese Grades:

AH70, AH90

3

VG Grades:

VG40, VG30, VG20, VG10,



Quality Control:

Our state-of-the-art Bitumen Laboratory is equipped with advanced technology, providing precise testing facilities tailored to the specific requirements of each project. At Lotus Energy, we prioritize in-time quality control and consistency, offering an extensive range of tests to ensure that all bitumen grades meet rigorous quality standards.



The dedication and accountability of our laboratory team guarantee consistent, high-quality products that align with the latest industry standards.



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We offer a versatile range of packaging solutions designed to meet the diverse needs of our international clients while ensuring the preservation and quality of our bitumen. Our packaging options include bulk, bitutainers, flexi tanks, jumbo bags, and drums—all meticulously crafted for safe, efficient handling and transport. Each packaging solution is optimized for specific market needs, providing flexibility and operational efficiency to support our clients worldwide.

Packaging

Our comprehensive packaging options are tailored to maintain product integrity and meet regional requirements, supporting seamless logistics and reliable delivery for our clients around the globe.

Bulk

Heated bulk carriers transport bitumen in liquid form to the destination port, offering a cost-effective option due to reduced transportation expenses. Each shipment typically includes a minimum of 1,000 tons, with standard carriers accommodating between 3,000 and 30,000 tons. As the carrier nears the port, the heater is activated to maintain the bitumen's liquid state for unloading.

Bitutainer

Bitutainers are specially designed containers ideal for bitumen transport, equipped with efficient heating systems and stability features. With capacities of 21 to 27 tons, bitutainers are particularly suited for regions without maritime access, offering a practical solution for shorter destinations, including routes across the Persian Gulf.

Flexi Tank

Flexi tanks are collapsible containers made from durable, flexible materials such as polyethylene and nylon, ideal for bulk liquid transport. Their compact, foldable design allows for efficient storage. China is among the primary destinations for bitumen transported via flexi tanks.

Jumbo Bag

Jumbo bags provide cost-effective storage and transport, reducing the need for continuous heating and cutting bitumen waste by 3-4%. These bags are mounted on pallets or secured in silk cages for shipping, with China being a popular destination.

Drum

Drums are the conventional choice for bitumen packing and vary in volume, thickness, height, and lid style, with a standard thickness of 6 millimeters. Common destinations for drum-packed bitumen include South and Southeast Asia and Africa.

Product Grade Specs



Penetration Grade

CHARACTERISTIC	UNIT	40/50	60/70	85/100	120/150	200/300	TEST METHOD
Penetration @25 °C	0.1 mm	40/50	60/70	85/100	120/150	200/300	ASTM D 5
Flash Point	°C	>232	>232	>232	>218	>177	ASTM D 92
Solubility in TCE	% WT	>99.0	>99.0	>99.0	>99.0	>99.0	ASTM D 2042
Specific Gravity @25 °C	————	1.01-1.06	1.01-1.06	1.01-1.05	1.01-1.05	1.01-1.05	ASTM D 70
Ductility @25 °C	Cm	>100	>100	>100	>100	>100	ASTM D 113
Softening Point Min	°C	49	46	42	38	32	ASTM D 36
Loss on Heating Max	% WT	0.2	0.2	0.5	0.5	1.0	ASTM D 6
Drop in Penetration After Heating	%	<20	<20	<20	<20	<20	ASTM D 5

Product Grade Specs



Viscosity Grade

CHARACTERISTIC	UNIT	VG40	VG30	VG20	VG10	TEST METHOD
Absolute Viscosity @60 °C	Poises	3200-4800	2400-3600	1600-2400	800-1200	ASTM D 2171
Kinematic Viscosity @135 °C Min	CST	400	350	300	250	ASTM D 2170
Penetration @25 °C Min	0.1 mm	35	45	60	80	ASTM D 5
Flash Point Min	°C	220	220	220	220	ASTM D 92
Solubility in TCE Min	% WT	99	99	99	99	ASTM D 2042
Softening Point Min	°C	50	47	45	40	ASTM D 36
Test on residue from rolling thin film oven test						
a) Viscosity Ratio @60 °C Max		4	4	4	4	ASTM D 2171
b) Ductility @25 °C Min	Cm	25	40	50	75	ASTM D 113

Product Grade Specs

Chinese Grades

Bitumen AH-70			
Test Item	UNIT	Specification	TEST METHOD
Penetration (25°C/5s/100g)	0.1mm	60~80	T0604-2011
Penetration Index	-	-1.5~1.0	T0604-2011
Softening Point (Ring & Ball)	°C	Min 46	T0606-2011
Dynamic Viscosity at 60°C	Pa.s	Min 150	T0620-2000
Ductility (5cm/min @10°C)	cm	Min 15	T0605-2011
Ductility (5cm/min @15°C)	cm	Min 100	T0605-2011
Wax Content (Distillation Method)	%	Max 3	T0615-2011
Flash Point (COC)	°C	Min 260	T0611-2011
Solubility in Trichloreoethylene	%	Min 99.5	T0607-2011
Density (@15°C)	g/cm ³	Report	T0603-2011
After Thin-Film Oven Test (TFOT) or Rotary TFOT (RTFOT)			T609 or T0610
Weight Change after TFOT or RTFOT	%	±0.8	T609 or T0610
Penetration Ratio of Residue after TFOT or RTFOT	%	Min 61	T0604-2011
Ductility @10°C after TFOT or RTFOT	cm	Min 6	T0605-2011
Ductility @15°C after TFOT or RTFOT	cm	Min 30	T0605-2011

Bitumen AH-90			
Test Item	UNIT	Specification	TEST METHOD
Penetration (25°C/5s/100g)	0.1mm	80~100	T0604-2011
Penetration Index	-	-1.5~1.0	T0604-2011
Softening Point (Ring & Ball)	°C	Min 45	T0606-2011
Dynamic Viscosity at 60°C	Pa.s	Min 140	T0620-2000
Ductility (5cm/min @10°C)	cm	Min 45	T0605-2011
Ductility (5cm/min @15°C)	cm	Min 100	T0605-2011
Wax Content (Distillation Method)	%	Max 2.2	T0615-2011
Flash Point (COC)	°C	Min 245	T0611-2011
Solubility in Trichloreoethylene	%	Min 99.5	T0607-2011
Density (@15°C)	g/cm ³	Report	T0603-2011
After Thin-Film Oven Test (TFOT) or Rotary TFOT (RTFOT)			T609 or T0610
Weight Change after TFOT or RTFOT	%	±0.8	T609 or T0610
Penetration Ratio of Residue after TFOT or RTFOT	%	Min 57	T0604-2011
Ductility @10°C after TFOT or RTFOT	cm	Min 8	T0605-2011
Ductility @15°C after TFOT or RTFOT	cm	Min 40	T0605-2011



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