

FIRST TRACK BITUMEN



First Track Bitumen (FTB) established in 2018 and our refinery located in Shiraz city (Iran), FTB is one of the finest private manufacturing of bitumen and supplier with leading name in the bitumen industry. FTB is uniquely positioned to lead in manufacturing, development and marketing in the regional and international markets

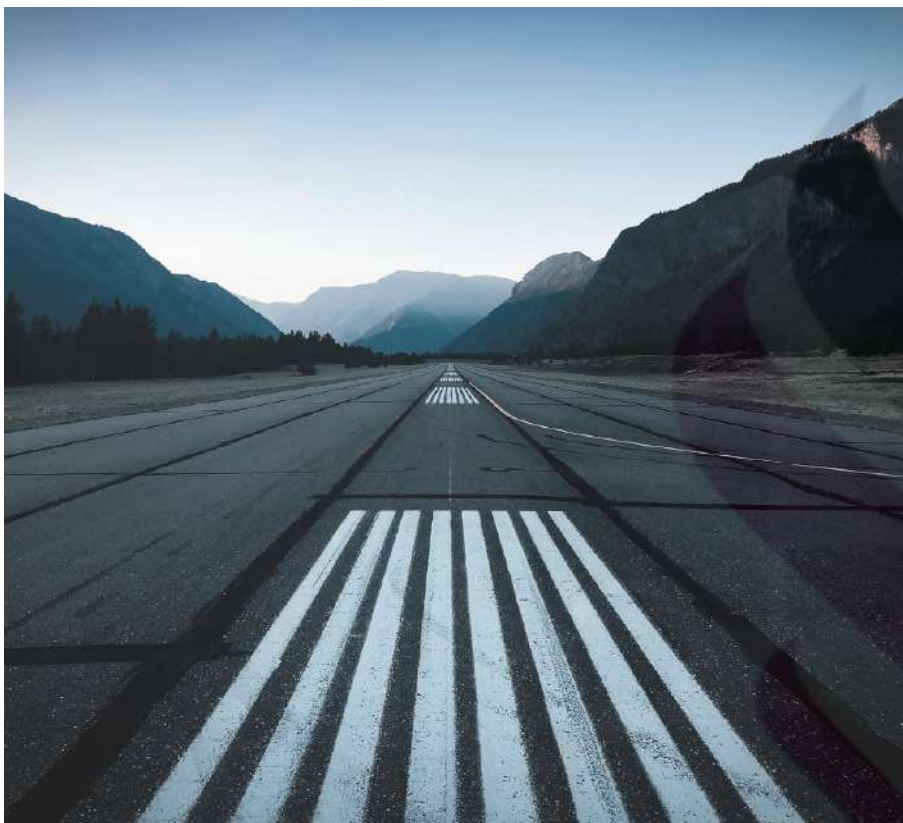
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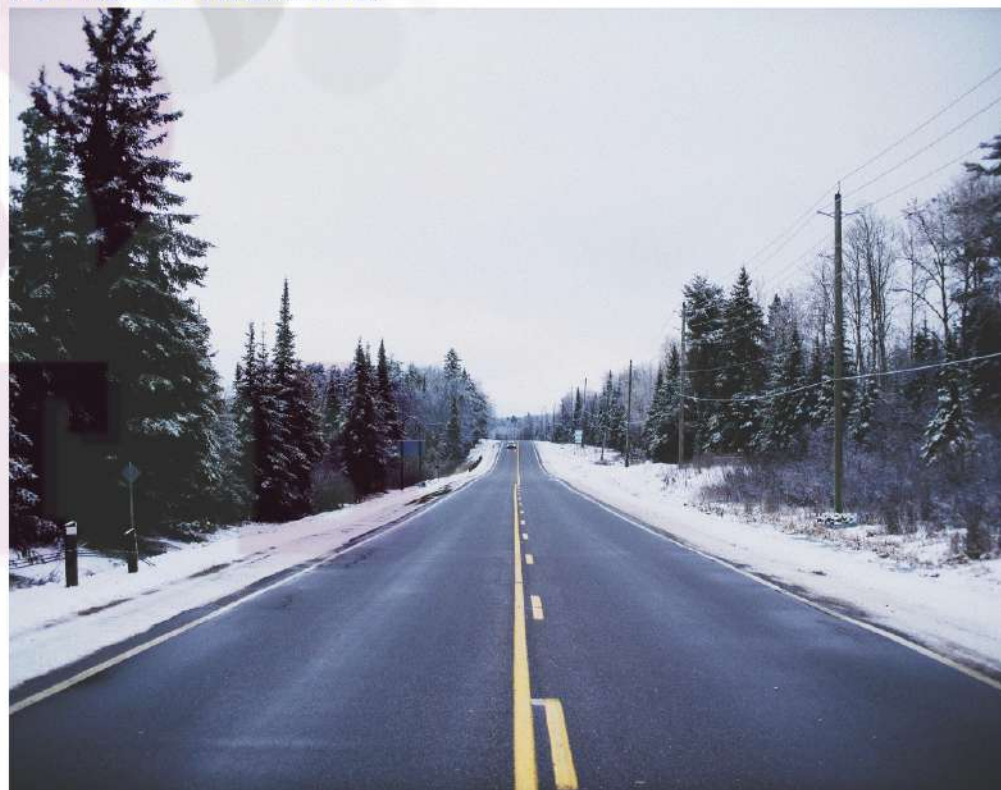
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POLYMER MODIFIED BITUMEN (PMB) IS ONE OF THE SPECIALLY DESIGNED AND ENGINEERED BITUMEN GRADES THAT ARE USED IN MAKING PAVEMENT, ROADS FOR HEAVY DUTY TRAFFIC AND HOME ROOFING SOLUTIONS TO WITHSTAND EXTREME WEATHER CONDITIONS. PMB IS A NORMAL BITUMEN WITH THE ADDED POLYMER, WHICH GIVES IT EXTRA STRENGTH, HIGH COHESIVENESS AND RESISTANCE TO FATIGUE, STRIPPING AND DEFORMATIONS, MAKING IT A FAVORABLE MATERIAL FOR INFRASTRUCTURE.

PAVEMENTS DESIGNED AND CONSTRUCTED FOR HEAVY-DUTY TRAFFIC AND EXTREME WEATHER CONDITIONS REQUIRE SPECIALLY DESIGNED ENGINEERED BITUMEN GRADES. BY CHANGING THE CHARACTERISTICS OF NORMAL BITUMEN WITH THE ADDITION OF A POLYMER, EITHER THEY ARE OF ELASTOMERIC NATURE OR ELASTOMERIC, WE SUCCEED TO OBTAIN BITUMEN THAT ALLOWS THE MIXTURE TO BE MORE COHESIVE, WITH MUCH MORE STRENGTH AND SIGNIFICANT HIGHER RESISTANCE TO PARAMETERS LIKE FATIGUE AND PERMANENT DEFORMATIONS FOR ROAD PAVEMENTS.



Cutback bitumen

is a range of binders that are produced by adding a hydrocarbon solvent such as paraffin or mineral turpentine to the penetration grade bitumen and mixing them.

as the solvent evaporates, the binder returns to its original form (penetration grade) to stick the particles with one another. Cutback bitumen gets the name from the solvent which is used in the process, because the solvent cuts back or evaporates, leaving the binder on the surface to do the rest of the work. The solvent used is called the cutter or flux

PENETRATION GRADE

BITUMEN PEN GRADES ARE MAINLY USED IN THE MANUFACTURING OF HOT MIX ASPHALT FOR ROAD BASE AND WEARING COURSES. TO CHOOSE AMONG VARIOUS GRADES OF BITUMEN PENETRATION, MANY FACTORS SHOULD BE TAKEN INTO ACCOUNT, INCLUDING, THE AVERAGE TEMPERATURE OF THE REGION, THE LEVEL OF TRAFFIC LOADS, AND TYPE OF SOIL.



Performance grade bitumen (PG Bitumen) is a kind of bitumen that is rated according to how it performs under certain performance conditions. This classification, which is based on an understanding of bitumen's behavior and functional characteristics, has been evaluated, and the appropriate bitumen types have been determined. These characteristics include resistance to deformations, resistance to cracking due to cold, resistance to cracking due to fatigue, and the ability to predict how bitumen will harden in an asphalt factory and when preparing the asphalt mixture, as well as how it will harden over time and in response to tests

PENETRATION GRADES

SPECIFICATION	TEST METHOD	UNIT	10/20	40/50	60/70	80/100	200/300
Specific Gravity @25°C	ASTM D-70		1.01-	1.01-1.06	1.01-1.06	1.01-1.06	1.01-1.06
Penetration @25°C , 100gr , 5 Sec	ASTM D-5	0.1 mm	1.06 10-	40-50	60-70	80-100	200-300
Softening Point , Ring & Ball , °C	ASTM D-36	°C	20 52-60	52-60	49-56	45-52	32
Ductility @25°C , min	ASTM D-113	cm	100.0	100.0	100.0	100.0	100
Ductility @10°C , min	ASTM D-113	cm	-	-	-	-	-
Loss on Heating , max	ASTM D-6	%wt	0.8	0.8	0.8	1	1
Drop in Penetrstion after Heating , max	ASTM D-5 & D-6	%wt	20.0	20.0	20.0	20.0	20.0
Flash Point Cleveland open-cup , min	ASTM D-92	°C	230	230	230	230	177
Solubility in CS 2 , min	ASTM D-4	%wt	99.5	99.5	99.5	99.5	99.5
Organic Matter Insoluble in CS 2 , max	ASTM D-4	%wt	0.5	0.5	0.5	0.5	0.5
Spot test			Negative	Negative	Negative	Negative	Negative
	*A.A.S.H.T.O.102						

*These data are according to ASTM D36-95 and UNI EN 1426 standards

VISCOSITY GRADES

TEST	TEST METHOD	VG-10	VG-20	VG-30	VG-40
Absolute Viscosity @ 60°C , Poises (min)	ASTM D-2171	800	1600	2400	3200
Kinematic Viscosity @ 135°C , cSt (min)	ASTM D-2170	250	300	350	400
Flash Point (Cleveland Open-Cup) , °C (min)	ASTM D-92	220	220	220	220
Solubility in trichloroethylene , % (min)	ASTM D-2040	99	99	99	99
Softening Point , Ring & Ball , °C	ASTM D-36	40	45	47	50
Penetration @ 25°C , 0.1mm , 100 gr , 5sec.	ASTM D-5	80-100	60-80	50-70	40-60
Specific Gravity @ 27/27°C (min)	ASTM D-70	0.99	0.99	0.99	0.99

Tests on residue from TFOT :

I)Viscosity ratio @ 60°C (max)	ASTM D-2171	4.	4.	4.	4.
II)Ductility @ 25°C , cm , after TFOT (min)	ASTM D-113	0 75	0 50	0 40	0 25

CUTBACK GRADES (MC)

CUTBACK SPECIFICATION	TEST METHOD	UNIT	MC-30	MC-70	MC-250	MC-800	MC-3000	
Kinematic viscosity @ 60°C (140°F)	ASTM D-2170	cSt	30/60	70/140	250/500	800/1600	3000/6000	
Flash Point (Tag open-cup) , min	ASTM D-92	°C	38	38	66	66	66	
Residue from distillation to 360°C , min	ASTM D-402	(°F)	50	55	67	75	80	
DISTILLATE TEST	Distillate , volume percent of total distillate to 360°C (437°F)							
to 225°C (437°F) min/max	ASTM D-402		.../25	.../20	.../10	.../...	.../...	
to 260°C (500°F) min/max	ASTM D-402		40/7	20/6	15/5	.../35	.../15	
to 316°C (600°F) min/max	ASTM D-402		0	0	5	45/8	15/7	
					TEST ON RESIDUE FROM DISTILLATION	60/8	0	5
Penetration @ 25°C min/max	ASTM D-5	0.1 mm	120/250	120/250	120/250	120/250	120/250	
Ductility@25°C (77°F) min	ASTM D-113	cm	100.0	100.0	100.0	100.0	100.0	
Solubility in Trichloroethylene , min	ASTM D-2042	% wt	99.0	99.0	99.0	99.0	99.0	
Water , max	ASTM D-95	%Vol	0.2	0.2	0.2	0.2	0.2	

CUTBACK GRADES (RC)

CUTBACK SPECIFICATION	TEST METHOD	UNIT	RC-70	RC-250	RC-800	RC-3000
Kinematic viscosity @ 60°C (140°F)	ASTM D-2170	cSt	70/140	250/500	800/1600	3000/6000
Flash Point (Tag open-cup) , min	ASTM D-92	°C	-	27 (80)	27 (80)	27 (80)
Residue from distillation to 360°C, min	ASTM D-402	(°F)	55	65	75	80
DISTILLATE TEST		Distillate , volume percent of total distillate to 360°C (437°F)				
to 190°C (374°F) min/max	ASTM D-402		10/...	.../...	.../...	.../...
to 225°C (437°F) min/max	ASTM D-402		50/...	35/...	15/...	.../...
to 260°C (500°F) min/max	ASTM D-402		70/...	60/...	45/...	25/...
to 316°C (600°F) min/max	ASTM D-402		85/...	80/...	75/...	70/...
TEST ON RESIDUE FROM DISTILLATION:						
Penetration @ 25°C min/max	ASTM D-5	0.1mm	60/240	60/240	60/240	60/240
Ductility@25°C (77° F) min	ASTM D-113	cm	100	100	100	100
Solubility in Trichloroethylene, min	ASTM D-2042	%wt	99.0	99.0	99.0	99.0
Water, max	ASTM D-95	%vol	0.2	0.2	0.2	0.2

CUTBACK GRADES (SC)

CUTBACK SPECIFICATION	TEST METHOD	UNIT	SC-70	SC-250	SC-800	SC-3000
Kinematic viscosity @ 60°C	ASTM D-2170	cSt	70/140	250/50	800/160	3000/600
(140°F) Flash Point (Tag open-cup)	ASTM D-92	°C (°F)	66	0 79	0 93	0 107
, min.				(175)	(200)	(225)
DISTILLATE TEST						
Total to 360°C (680°F), volume % min/max	ASTM D-402		10/30	4/20	2/12	.../5
Solubility in Trichloroethylene, min	ASTM D-2042	%wt	99.0	99.0	99.0	99.0
Kinematic viscosity on distillation residue @ 60°C (140°F) min/max	ASTM D-2170	cSt	400-7000	800-10000	2000-16000	4000-35000
ASPHALT RESIDUE						
Residue of 100 Penetration, min	ASTM D-243	%	50/..	60/..	70/..	80/..
Ductility of 100 penetration residue @ 25°C (77°F) min	ASTM D-113	cm
Water, max	ASTM D-95	%vol	100	100	100	100
			0.5	0.5	0.5	0.5

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PERFORMANCE GRADES

TEST METHOD	LIMIT	ASTM	AASHTO	PG 58-22	PG 70-16	PG 76-10	PG 64-22
Flash Point (°C)	230 °C Min	D92	T48	303		300 320	312
Rotational Viscosity@135°C	3 Pa.s Max	D4402	T31	0.282		0.425 0.425	0.325
DSR (°C)			6	58		7076	64
G*/sinδ (°C) 10 rad/s	1.0 KPa Min	D7175	T315	1.51		1.1 1.2	1.14
RTFOT G*/sinδ (°C) 10 rad/s	2.20 KPa Min	D7175	T315	2.71		2.3 2.25	2.9
Change of mass after RTFOT	1% Max	D2872	T240	0.08		0.12 0.12	0.06
PAV		D5621	R28			100 (110) (°C) T (°C)	
DSR G*/sinδ (°C) 10 rad/s	KPa 5000 Max	D7175	T315	3330		2440 2720	295
BBR (°C)				-12		-60	0
Stiffness Mpa	300 Mpa Max	D664	T31	266		206 176	-12
m-value	0.03 Min	8	3	0.30		0.32 0.35	234
		D664	T31	9			0.3
		8	3				

PACKING

BULK EXPORT TERMINAL



Export terminal facilities

- A private pier
- Minimum distance between terminal and the loading dock
- High-speed loading and unloading
- Inward transit of tankers to the ship
- Loading different grades of bitumen simultaneously
- Capability to increase product temperature in tanks
- Carrying out the administrative affairs of the port within shortest possible time 24/ 7 .
- Storage capacity of 21,000 tons of bitumen and furnace oil
- Ship loading speed up to 340 cubic meters per hour
- Ship loading capacity up to 10,000 tons

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PACKING BITUTAINER FILLING UNIT



First Track Bitumen (FTB) company has developed in bitumen packaging industry by launching bitutainer filling unit. Benefiting from high potential of our engineering and production units, the company has been able to load different grades of bitumen in bitutainer and facilitate bitumen export in large volumes by container ships to several countries. Furthermore, it leads to a notable reduction in the final price of bitumen which helps create a competitive market.

bitutainer packaging capacity of this company is 800 metric tons per day.



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PACKING JUMBO BAG

First Track Bitumen, counting on its technical and engineering capability, has started operating jumbo bag filling in the factory. Jumbo bag is an increasingly demanded bitumen packaging system presently and some of its advantages are as follows:

- Easy transportation due to weight of bags
- Not causing any environmental damages at destination
- Easy melting at destination
- Internal liner material compatibility with bitumen
- Improving bitumen specifications by melting and mixing liner material with packed bitumen
- Easy stuffing and utilizing maximum capacity of the container
- Capability of packing in 250 to 1300 KG bags on demand
- Favorably acceptable in European and African countries

Jumbo bag loading facilities consist of two stations with the loading capacity of 250 MT per day

Jumbo bag station is equipped with accurate weighing loadcells with the tolerance of +/- 1 kg and all instrumentation tools including temperature & pressure sensors, and flow rate controller via drive and PLC; operating in a safe temperature of 100 °C. Jumbo bag can be customized with specific logos, markings and strapping methods.



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BITUMEN PACKING

180 KG & 150 KG STEEL DRUM SPECIFICATION

ITEM	NORMAL DRUM (180Kg)	SHORT DRUM (150Kg)
Content Weight	180 ± 2 kg	150 ± 2 kg
Plate grade	ST-12	ST-12
Origin	Isfahan Mobarakeh Complex	Isfahan Mobarakeh Complex
Height of drum	980 mm	830 mm
Diameter of drum	500 ± 2 mm	500 ± 2 mm
Diameter of lid	100 ± 2 mm	100 ± 2 mm
Plate thickness(body)	0.6 mm	0.6 mm
Plate thickness(top & bottom)	0.6 mm	0.6 mm
Drum Weight	9.5 ± 0.2 kg	8.3 ± 0.2 kg



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DRUM PRODUCTION UNIT

This method of bitumen packaging is very common. The drum is made of cold-rolled steel in order to protect it against corrosion and is coated with rust-proof black painting. The drum is made in a frilled form to become more resistant. Here are the technical specifications of this packing:



WHY US

FIRST TRACK BITUMEN Company is mainly active in marketing and selling of the products to numerous customers around the world, capable of delivering cargoes of both drum and bulk, based on either FOB or CFR terms. Thanks to our experts' shipping knowledge and strong relationship with shipping lines, we can also handle cross-stuffed shipments to various destinations.

No matter what bitumen products you order from First Track Bitumen, you can count on us to deliver. FTB has a dedicated bitumen supply chain and offers an international logistics chain – 24/7.

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MAIN MARKETS

Berthing Points

FIRST TRACK BITUMEM is capable of loading bulk vessels from two different berthing points with a rate of over 150MT/Hour each.



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