

THE WORLD OF PETROLEUM AND BITUMEN

亚洲沥青生产商与消费者之间的桥梁























INFINITY GALAXY BUILDING & CONSTRUCTION MATERIALS TRADING - FZCO

WE PUBLISH WEEKLY MARKET ANALYSES AS STRATEGIC GUIDANCE. OUR COMPANY ACCOMPANIES YOU FROM ORDER PLACEMENT TO FINAL DELIVERY TO ENSURE AN INSTANT, SAFE, AND SMOOTH PURCHASE JOURNEY.

Our Products

Paving Grade Bitumen:

- Penetration Bitumen (Pen Grades)
- · Viscosity Bitumen (VG Grades)
- Performance Grade Bitumen (PG Grades)
- AH Bitumen (Chineses Grades)
- · Asphalt Cement (AC Grades)
- Australian Standard Grades (C-Class Grades)

Liquid Bitumen:

- · Cutback Bitumen
- · Emulsion Bitumen

Oxidized Bitumen

+971 4 558 2418



www.infinitygalaxy.org



Unit. 1623, Floor 16, ParkLane Tower, Business Bay, Dubai, UAE.



Contact us on WhatsApp

Our Packages

- **New Steel Drum**
- **Jumbo Bag**
- FlexiTank
- **Reconditioned Steel Drum**













- **★**Manufacturer of Various Types of Road Construction Bitumen
- ★Producer of the Highest Quality Bitumen in Iran
- **★**Bitumen Without Borders

PRODUCER OF VARIOUS BITUMEN GRADES:

PERFORMANCE, PENETRATION, VISCOSITY, SOLUBLE, SPECIALTY BITUMEN



OCT-2025 WPB

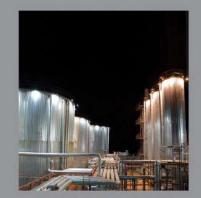


SEBCO Bitumen Group has the annual production capacity of One Million Metric Tons of various grades of bitumen owns "SPADANA BITUMEN PASARGAD", "SEPAHAN BITUMEN JEY ", "PETRO KALA SAMAN "and "PAYAM BAR Transportation company" as its subsidiaries. The SEBCO bitumen group has an essential key role in the production, distribution, transportation and export of global bitumen market. This group with the technical certificate at Iranian BHRC, is among the vendors of roads construction, airports and landscaping megaprojects. SEBCO profited by expert human resource, management information systems, high-tech quality control facilities, powerful social capital and exclusive fleet, those providing wide solutions for complicated commercial and logistic demands to supply various products in different packings; assures our customers that they always receiving superior quality products and services promptly at a competitive price.









SPADANA BITUMEN PASARGAD



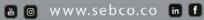


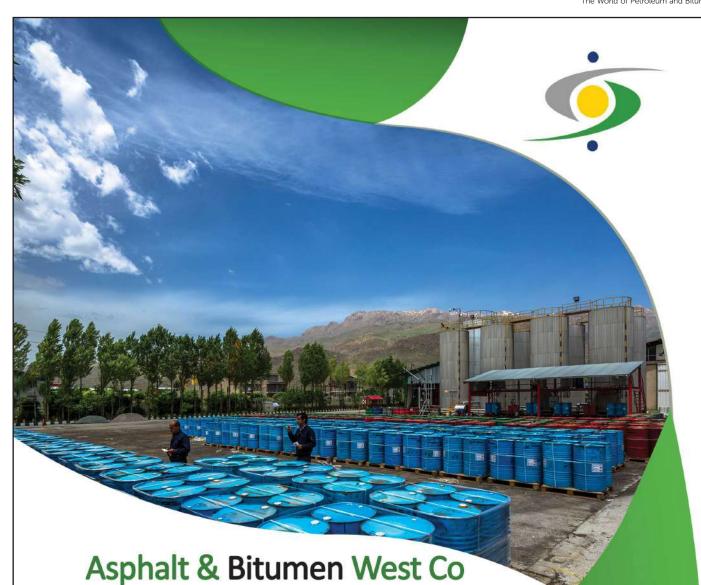
PETRO KALA SAMAN



PAYAM BAR Delijan - IRAN

+98 (21) 9200 18 05





Manufacturer of Cutback Bitumen and Cationic Emulsion Bitumen for more than 15 years. We have been producing and exporting to Africa, East Asia and Middle East for almost 10 years.

All products comply with ASTM Standard (D2027-D2397), EN & KS.



Phone: +98 21 8869 2668 - 70 +98 21 8856 7938, Fax: +98 21 8856 7930

Export sales: +98 912 834 9508

Email : Sales@bitumensales.com

Main Products:

Cutbacks (MC30, MC70, MC250, MC3000, RC70, ...)
Cationic Emulsions (CSS1, CRS1, CRS2, CMS1, ...)
African Standard (K1-60, K1-70, K3, ...)





As Iran's largest private sector shipping company, Espad Darya Paya takes pride in delivering excellence in maritime transportation. With a fleet of over 300,000 containers and regular services from major Iranian ports to global destinations, we ensure seamless and reliable logistics tailored to your needs.

www.espad-co.com

- Weekly Regular Services
- Extensive Coverage Across 350 Ports in 30+ Countries
- Fast, Secure, and Dependable Solutions
- Flexible Services Designed Around Customer Requirements
- 0 2nd Floor, No. 17, 13th St., Vozara St., Tehran - Iran
- +9821 581 63000
- 0 info@espad-co.com







4M APPROACH | Catering the Complete Bituminous Pavement Life Cycle

Engineering excellence across the entire bitumen journey - One strategy. Every stage.





ASPHALT BATCH MIXING PLANTS
Stationary & Mobile Plants | 80-320 TPH



BITUMEN MODIFYING
PMB/CRMB & Emulsion Plants

Committed to Excellence-

Through Rugged, Robust & Reliable Solutions

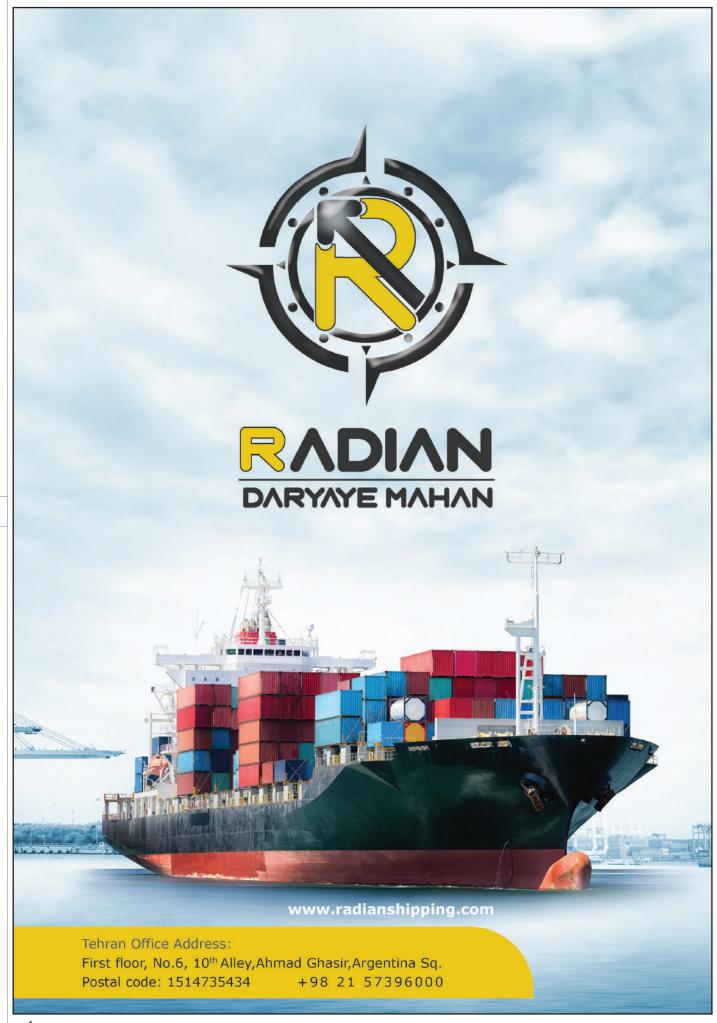


ALLTECH INDIA LIMITED

■ info@alltech-group.com

www.alltech-group.com

+91 89800 05313 | 9825006188







PASSARGAD HOLDING

Int'l Transportation and Shipping Agency



Expert in Transporting Bitumen and Petroleum products

info@pasusea.com info@barbanpassargad.com

www.pasusea.com www.barbanpassargad.com

(+98) 21 58 127 000





FRONTIER COMPANY **PHOENIX REFINERY**

- In 1907, Phoenix International A/S was found in Denmark/ Europe
- In 2012, Frontier Co (Phoenix Refinery) has been established a new refinery in Slemani/Iraq
- In 2015, Frontier Co. started exporting Bitumen to Asia, Africa, India, China, Brazil,

Pero, Turkey, Georgia, Romania, Armenia, Malaysia, United Kingdom, and EuropeanCountries

- In 2020, a new technology VDU refinery has been installed in Slemani/Iraq

Our Products:

- Vacuum Diesel Oil (VDO)
- Light Vacuum Gas Oil (LVGO)
- Heavy Vacuum Gas Oil (HVGO)
- Vacuum Residue (VR)
- Paving Bitumen Grades
- Viscosity Bitumen Grades
- SG Bitumen Grade
- Oxidized Bitumen Grades
- Polymer Modified Bitumen (PMB)
- Mastic
- Flynt Coat
- Tack Coat
- Prime Coat
- Waterproof Membrane



PHOENIXREFINERY.COM PHOENIX@PHOENIXREFINERY.COM













Owning over 50,000 containers

Special equipment & REEFERS

Malaysia & Europe

Serving Iran Trade since 12 years

Very flexible on freights & terms

Owns Offices in Iran, Dubai, Pakistan,



DARYA PEYMAYE AMIN PARS

- (0098 21 75264 (30 Lines)
- 📆 0098 21 26409607
- 0098 912 2234311
- com es@daryapeymayeaminpars.com

We have a completely different vision of supply chain effectiveness.

Why?

Because our goal is very clear :-Collaborate with you as a strategic trade partner

to make your business with us a rewarding and enjoyable one!







Comitted to offer uality services

Dear Patron,

Our setup which is a legacy of serving and conserving clients in the Iran Shipping Industry is managed by energetic professionals committed to Total Customer Satisfaction. Being cognizant of the fact that success comes with loyalty and efficiency, we look up to serving our customers with good quality services on a sustained basis making their working with us an enjoyable experience for them every time.

We aspire to offer efficient basic transportation services seeking the comfort and fulfilling the expectation of our customers and Principals.



" Your patronage is our indisputable treasure"



HAMAHANG DARYAYE PARS

Shipping Agency

experience



0098 21 75992 (30 Lines)

20098 21 26705791

0098 912 2212190

x ss@hamahangdaryayepars.com

Serving you globally with care & honor

We commit what we deliver and deliver what we commit





We provide Value for your money

We value your patronage

"Our success lies in making your business with us a success and we will never settle for anything less

10

BIG COMFORT

Accommodating operator preferences, the 525-60 and 530-60 have an ergonomic and comfortable design for long hours working on the farm.







ENHANCED OPERATOR VISIBILITY

Split stable door, tinted cab glass and new and improved mirrors, boost all-round visibility.

AN ORGANISATION WITH ALMOST 3 DEC ADES OF BITUMEN SUPPLY EXPERIENCE IN INDIA



Bitumen Corporation India PVT. LTD. (BITCOL) 27/28 A, Nariman Bhavan, Nariman Point, Mumbai-400 021, Maharashtra, INDIA

T: +91 22 228 70691 | +91 22 228 70692

E: info@bitcol.in

14





河北群邦化工有限公司 Hebei Qunbang Chemical Co., Ltd

Hebei Qunbang Chemical Co., Ltd



این شرکت در سال ۲۰۰۷ تاسیس شد و دارای دو کارخانه پتروشیمی مستقل در هبی چین است که متخصص در تولید محصولات کک سازی زغال سنگ و محصولات نسوز است. محصولات اصلى شامل قطران زغال سنگ، کرئوزوت، نفتالین صنعتی، قطران زغال سنگ، مواد نسوز، کربوریزرها، کربن فعال و ساير محصولات است





همچنین این شرکت دارای حقوق مستقل واردات و صادرات است و محصولات آن به کشورها و مناطقی مانندهند، برزیل، آسیای جنوب شرقی، آفریقاو آمریکای جنوبی صادر می شود. صادرات سالانه آن حدود 10000 تن محصولات يتروشيمي زغال سنگ و حدود ۵۰۰۰۰ تن مواد نسوز است. قطران زغال سنگ تولید شده توسط این کارخانه در حال حاضر به بیش از 20 **کارخانه آلومینیوم در سراسر جهان عرضه** می شود



COAL TAR PITCH



industrial naphthalene

- Building 6,Industry city,Congtai District,Handan City,Hebei Province,China
- 00863107056581 +8615231050888
- hdsqbwz@hdqunbang.com
- www.qunbangchem.com



AKAM **BITUMEN COMPANY**

RIYONIZ **BITUMEN REFINERY**







Akam Bitumen Refinery has been established in the year 2009 based on International Oil and Gas Standards which could achieve "Quality Management System ISO2001:20015", "Environment Management System ISO1401:2015", "Health & Safety Management System OHSAS 1801:2007 " and "European Standard CE" successfully. Worth to mention that Akam Bitumen Refinery is distinguished to have the production capacity of more than 2500 MT/DAY of all Grades of Bitumen in various Packings in order to respond to our valued customer's requirement.

Riyoniz Bitumen Refinery which was established in the year 2012 is privileged to be located in an industrial area near Bandar Abbas port which has the production capacity of more than 2000 MT/DAY of all Grades of Bitumen in various Packings.

Relying on our Refineries and our capabilities we are honored to be one of the leading companies in the industry in this region, trying our best level to provide our valued customers with the best Quality and Services to meet their satisfaction

Office: Unit 2, NO.5, Babak Markazi, Nelson Mandela Avenue (Jordan), Tehran, Iran

INFO@AKAMB.COM WWW.AKAMB.COM

Tel: +98 (021)-88657970-4

Office: Unit 502, No 19, Geeti Blvd, Golestan Blvd, Nelson Mandela Ave, Tehran, Iran

INFO@RIYONIZ.COM WWW.RIYONIZ.COM

Tel: +98 (021)-26290179



装运重量: 25 吨

装运型号: 60/70, 85/100, 200/300

装货时间: 30 分钟 卸货时间: 20-40 分钟

配置:液袋+2卷瓦楞纸,无需挡板系统

Some details about 40' Bitumen Flexitank:

Payload: 25 tons

Grades shipped: 60/70, 85/100, 200/300

Loading time: 30 minutes

Discharging time: 20-40 minutes

Kit: flexitank + 2 rolls of corrugated paper, no

bulkhead system required

Hormozan oil, Sebco 等炼厂开创了沥青运输新模式 - 液袋运输。目 前伊朗沥青运输的每 10 条液袋就有 8 条来自 LAF。感谢行业里各位 朋友的帮助与支持。

现在,我们真切的了解到市面上缺少 20 尺集装箱的现实情况。历经 三年, 我们终于打造了一款能够满足装货和卸货的 40 尺沥青液袋。 加快沥青运输速度。

Since 2022, LAF has joined forces with refineries such as Black Gold, Akam, Parsian Energy, Oxin, Hormozan Oil, Sebco, AlM, STNJ (to name just a few) to utilize a new model for bitumen transport; flexitank shipping. Today, eight out of every ten bitumen flexitanks in Iran are supplied by LAF. Many thanks to all friends in the industry for their help and support.

We now clearly see the market reality: 20-ft containers are in short supply. After three years of development, we have finally created a 40-ft bitumen flexitank which not only addresses the issue of 20' containers shortage but also streamlines both loading and unloading process which leads to accelerating bitumen transport.

از سال ۲۰۲۲، شرکت LAF با همکاری شرکتهایی نظیر طلای سیاه، اکام، پارسیان انرژی، اکسین، نفت هرمزان، سبکو، عایق اصفهان، شیمی تجارت (تنها چند نمونه) استفاده از فلکسی تانک مخصوص قیر را توسعه داده اند و در حال حاضر ۸ فلکسی تانک از ۱۰ فلکسی تانک استفاده شده در ایران توسط LAF تامین میشود. از همه دوستان در این صنعت سیاسگزاریم.

اما اکنون بازار با چالش کمبود کانتینر ۲۰ فوتی وبروست و ما پس از ۳ سال تحقیق و توسعه، فلکسی تانک قیر ۴۰ فوتی را طراحی و ارایه کرده ایم که نه تنها پاسخگوی مشکل کمبود کانتینر ۲۰ فوتی است بلکه با ساده کردن فرایند تخلیه و بارگیری باعث افزایش سرعت حمل قیر خواهد بود.

LAF 20ft Bitumen Flexitank



Contact Information

China LAF factory:

Chandler Chen 📞 +861519277615 🐼 chandlerchen@flexitank.net.cn

Iran agent:



🏅 Peyman Mozaffarifard 💟 +971 56 596 1010 🐶 ceo.peyman@qtransglobal.co



ENMORE | INFOTECH

2025 19th China **Bitumen Trading and Application**

Technology Conference

2025 NOV 12-13

EHNA Nanjing

Global Resource Matchmaking

Overseas enterprises from Russia, Asia-Pacific, Middle East and other regions will conduct on-site exchanges and collaborations with domestic companies.

Market Resources+Technology

Comprehensive coverage of overseas resources, domestic resources, import-export markets, and application technologies.

Multi-Industry Interconnection and Sharing

Trilateral collaboration across bitumen, refined oil & component materials, and LPG conferences to uncover more cooperation opportunities.



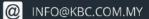


Contact with:

Ms. Maggie Sun Phone(Wechat):86-18663835052 Email: maggiesun@enmore.com







WWW.KBC.COM.MY

Lot No. 5957 (Plot PT 7195), Telok Kalong Industrial Area, Kemaman 24000, Terengganu Darul Iman, Malaysia



全球沥青市场展望 - 2025年10月初

WPB指出,2025年10月初的全球沥青市场表现分化;短期 压力仍对需求构成负面影响,而长期结构性因素依然存 在。亚洲的季节性趋势、北美的政策讨论以及欧洲和新兴 市场基础设施趋势的变化,正在共同塑造整体市场状况。

区域市场动态

亚洲市场情绪低迷。南亚和东南亚创纪录的季风降雨已暂 停道路建设工程, 采购周期倾向延长, 需求保持疲软。在 印度,季节性放缓使价格保持稳定,而大规模季后基础设 施项目重启之前,市场复苏迹象尚不明显。东亚,尤其是 中国沿海地区, 也因天气扰动和消费疲软面临下行压力。

在中东,过剩库存即使在炼油厂检修期间仍限制了价格波 动。伊朗的货币风险和制裁压力继续凸显该地区市场的脆 弱性。另一方面,欧洲市场在对特种产品(如氧化沥青) 的需求上表现出韧性,这主要受城市发展计划和对创新道 路技术的持续投资推动。

基础设施与政策发展

北美地区的议程集中在监管和政治问题上。阿尔伯塔省再 次延长了西海岸出口管道的邀请,但分析师和行业参与者 警告称, 重大立法障碍仍然存在。加拿大不列颠哥伦比亚 省北海岸大型油轮的联邦禁令以及对油砂开发的严格排放 法规,被视为主要障碍。如果没有政策调整,例如废除或 修订这些禁令,私人资本投资新管道设施的可能性不大。

省政府计划在2026年春向加拿大重大项目办公室提交提 案,但如果沿用过去趋势,自2019年以来,联邦对重大能 源项目的批准并不常见。这种情况凸显了外界对北美新建

沥青出口路线的怀疑态度。

远景与长期增长驱动因素

尽管面临当前不利因素,行业预测对沥青行业的长期发 展前景持乐观态度。预计全球沥青需求将稳步增长,消 费量将从2025年的约1.34亿吨增长到2030年的超过1.73 亿吨,加权平均增长率超过5%。这种增长主要由中东和 亚洲的基础设施开发项目以及全球持续的城市化推动。

此外,沥青乳液市场——作为绿色沥青生产的关键因 素——预计在价值上几乎翻倍,从2025年的约2.86亿美 元增至2035年的近5.69亿美元,复合年增长率为7.1%。 这反映了绿色道路建设产品的扩展以及技术应用的增 长。

同时,对国际沥青市场的更广泛预测显示,其规模将从 2025年的596亿美元扩展到2035年的713亿美元,年均增 长约为2%, 虽温和但稳定。这些预测表明, 尽管市场在 短期内可能波动,但从长期来看基础面稳固。

2025年10月初的全球沥青市场现状呈现双重现实: 短期 需求紧张、价格低迷,但长期结构性增长前景强劲。季 节性降雨、货币波动和监管难题仍支撑着当前市场压 力。然而,城市化、道路建设扩张以及向可持续道路技 术的逐步转型三重因素,使沥青成为未来数十年的首选 材料。

对于行业参与者而言,挑战显而易见:在短期波动中谨 慎前行,同时将自身定位与长期基础设施投资和绿色创 新的潜力保持一致





22

WPB

GLOBAL BITUMEN MARKET OUTLOOK - EARLY OCTOBER 2025





WPB is indicating that the global from weather disturbances and soft levels of consumption. bitumen market in early October reflects a divided performance, as near-term pressures remain to weigh on demand while longer-term structural factors remain. Seasonal trends in Asia, policy talks in North America, and changing infrastructure trends in Europe and emerging markets are shaping overall conditions.

In the Middle East, oversupplied inventories continue to

limit price movements even during refinery turnarounds. Currency risks and sanctions strain in Iran continue to underscore weakness of that regional market. On the other end, European markets have been resilient in their appetite for specialty products such as oxidized bitumen, spearheaded by urban development plans and steady investment in innovative road technologies.

Regional Market Dynamics

Infrastructure and Policy Developments

Asian markets are in muted spirits. Record monsoon rains in South and Southeast Asia have halted road construction work, inclined to extend procurement cycles and maintaining demand soft. In India, seasonal slowdown kept prices steady, and signs of recovery are not expected until large post-monsoon infrastructure projects restart. East Asia, particularly coastal China, also is facing downward pressure

Regulatory and political issues are on the agenda in North America. Alberta has once again extended the invitation for a west-coast export pipeline, but analysts and industry participants caution that significant legislative hurdles stand in the way. The federal prohibition of large oil tankers up the northern coast of British Columbia and stringent emissions regulations on oil sands development are considered major hurdles. Without policy adjustment, in the form of repealing or amending these prohibitions, private capital for new pipeline facilities is unlikely.

4 million bpd, the country's Tasnim news Iran plans to increase its crude oil output to agency reported in May, as cited by

SEPTEMBER 2025

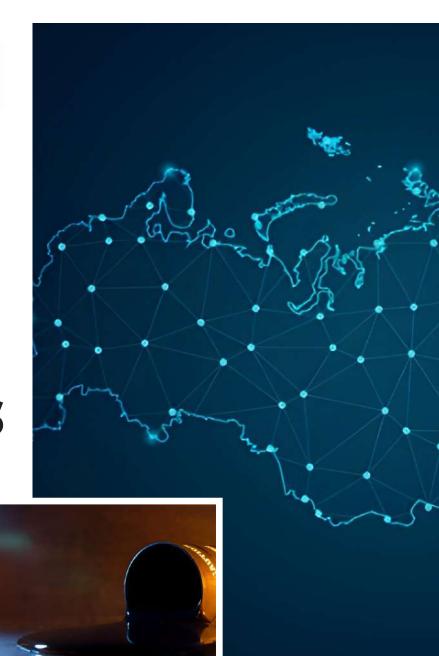
RUSSIAN **BITUMEN MARKET DYNAMICS**

s per WPB, in early September, the Russian bitumen market evidenced relative calmness within the general price index, even though there were significant fluctuations at the level of individual producers.

All but one of the suppliers raised their prices; however, the overall index was restrained by Rosneft refineries, which were lower-cost than their competitors. The trend was also affected by the slashing of prices at the Ufa refineries and the shutdown of deliveries from the Novoshakhtinsk plant.

In September of last year, the prices were down by about 500 rubles per ton. In dollars, the market this year saw a 4% decline due to the devaluation of the ruble.

For the premium of bitumen over fuel oil, the European group suffered a decline while prices of fuel oil rose by 1,020 rubles per ton and cut the differential to 5,090 rubles per ton. In Siberia, the premium went down further to 1,700 rubles per ton, and the differential remained at



6,040 rubles per ton.

The greatest price-growing contributors in the period were Gazpromneft-BM and independent traders selling on vertically integrated oil majors' and independent producers' platforms. Contrariwise, the Ufa refining group demonstrated a very significant fall of 2,500 rubles per ton. Thus, Rosneft's refineries exhibited the lowest price levels on the market.

Between 1 and 5 September, SPIMEX trading brought six transactions on a total of 250 tons of bitumen, sharply down from 450 tons in the previous period. Prices, though, were generally in compliance with official quotations.

24



WPB REPORTS

Asia-Pacific and Middle East Bitumen Market Outlook: Future Trends and Current Pressures





reports the bitumen market in the Asia-Pacific and the Middle East remains under pressure from oversupply and seasonal weakness in demand. While there is sporadic tendering activity in some locations such as Indonesia and India, the general market remains tempered with high inventories and adverse weather conditions preventing the prices from making a significant comeback.

The pricing environment reflects these tensions. In Singapore, export offers were in the \$410-415 per tonne range for cargoes loading in October, but the higher prices of earlier periods failed to attract sufficient buyers. Malaysia's ex-refinery prices were unchanged at \$428-430 per tonne, though the balance was tipped by surplus from domestic and Singaporean refiners. Indonesia was more active with buying larger lots of 4,000-5,000 tonnes on the \$470-475 per tonne cost-and-freight basis, whereas smaller lots were sold at reduced levels. Thai offers for export, however, remained in the \$415-425 range, but there was little buying interest which reflected poor demand.

The north and south of Vietnam posted varying bids in Vietnam, with importers seeking prices of \$395-410 per tonne from the north and \$430-435 from the south, though heavy monsoon rains discouraged bigger procurement. South Korea saw downward pressure, with export prices dropping to \$390-395 per tonne as volumes are being re-routed to Southeast Asia. In China, ex-works Shandong offers were 3,480-3,770 yuan per tonne, and Singapore imports were available at \$450-460 delivered to the ports in the south. India was discriminatory in its purchase, taking discriminatory tonnages of VG40 bulk from Iran at around \$275-280 per tonne. Iranian bulk sales were at \$274-278 per tonne ex-Bandar Abbas, while Iraqi drummed exports were at \$340-365 grade dependant.

The excess over demand is at the core of market dynamics today. In Singapore and Malaysia, massive inventories drive sentiment, with short-term shortterm opportunities from upcoming refinery maintenance being transitory. Indonesia tenders provided some calm, but the majority of importers opted for a wait-and-see strategy. Thailand preferred its domestic market, leaving export opportunities crippled by incessant rains that postponed road construction.

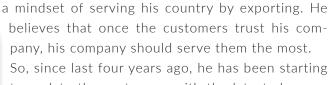


VIETNAM: THE HIDDEN PULSE OF SOUTHEAST ASIA'S BITU-**MEN MARKET**

AHMAD REZA YOUSEFI- RAZIEH GILANI

Ahmad Reza Yousefi, the managing director of Infinity Galaxy, and PhD candidate in international entrepreneurship has more than ten years of experience in the export of bitumen and petrochemicals.

He is running Infinity Galaxy with his young team with



to update the customers with the latest changes, trends, and facts of the market to help them make

the most profit out of their deals.

Razieh Gilani, the commercial deputy of Infinity Galaxy, is a bitumen market analyst and consultant with more than 8 years of experience in export, trade, and shipping, specialized in bitumen and petrochemicals export in the global markets.

She has been writing bitumen market analysis for more than 250 weeks to help market role players

make informed decisions based on the latest facts in the market.

She works with a committed team of professionals with rich commercial experience and deep insights into market challenges.



Amid the emerging markets of Asia, Vietnam has become one of the new demand hubs for bitumen in 2025. A country that, until a few years ago, was considered a medium-sized consumer in the region is now competing with Thailand and Indonesia to attract supply from Singapore and the Middle East.

With stable economic growth, increased infrastructure investment, and government planning to develop more than 3,000 km of new roads by the end of 2026, Vietnam has transformed from an unstable consumer market into one of the strategic destinations for bitumen exports in Southeast Asia.

International reports from 30 May 2025 to 3 October 2025 indicate that Vietnam's imported bitumen prices experienced limited but meaningful fluctuations, declining around 5% over five months. However, compared to other regional markets that recorded double-digit drops during the same period, Vietnam has remained one of the most stable markets.

This stability stems from three key factors:

- Demand concentrated on large infrastructure projects, which continue in phases even during the rainy season.
- A cautious purchasing pattern by domestic importers, who adjust their monthly inventory according to project activity rather than buying in bulk.
- A diversity of supply sources, giving Vietnam high flexibility against refinery or political disruptions in East Asia.

Price Analysis: Stability in a Volatile Region

Between May and October 2025, the global bitumen market in Asia faced downward pressure due to falling



KAZAKHSTAN LOWERS OCTOBER BITUMEN OUT-PUT TARGETS AS SEASONAL ACTIVITY SLOWS

According to WPB, Kazakhstan has reduced its October road bitumen plan of production by roughly one-fifth compared to last month as a response to the obvious dip in seasonal building demand. The new plan now amounts to 113,000 tons, which is a decline from 136,300 tons in September. Market analysts point out that such a change is to be expected during the time of switching from peak summer construction to the lower months when the activity of road maintenance and paving slowly dissipates.

Industry news indicates that in September, Kazakhstan's leading three bitumen manufacturers, including Caspi Bitum, Pavlodar Oil Refinery, and Qazaq Bitum, together produced around 118,041 tons of road-grade bitumen. Though they maintained constant production, the output volumes fell short of the Ministry of Energy's monthly goal.

Caspi Bitum, for example, fell short of its target of 60,000 tons by around 45,000 tons, Pavlodar Oil Refinery behind its plan by around 800 tons, and Qazaq Bitum by around 2,500 tons. These small falls both reflect supply chain problems and the gradually declining demand typical towards the end of road-construction season.

While the domestic market recovered quite tidily, there has been a bit of weakness in the bitumen price this October, traders say. Pavlodar-origin material wholesale prices weakened to 175,000–240,000 tenge per ton (VAT inclusive, EXW basis), from 175,000–250,000 tenge around the end of September. Caspi Bitum's quotations have

not changed at 165,000 tenge per ton, while Qazaq Bitum continues to sell its product at an average 265,000 tenge per ton.

According to the Ministry of Energy's latest schedule of trading, Caspi Bitum's planned October selling volume on Kazakhstan's commodity electronic exchanges has been cut to 12,000 tons from September's 18,000 tons. Despite that, however, figures at the Caspian Commodity Exchange show that the company managed to sell 14,365 tons last month — slightly above its updated forecasts, reflecting undeterred commercial interest in spite of declining construction activity.

At the same time, Russian imports remain the major sector of the Kazakh market. Though total domestic consumption dropped, Russian deliveries of bitumen have continued as well, with the cost of imports increasing by around \$20 per ton in October to \$300–\$320 per ton without the application of local taxes. The rise in price is caused by both higher logistics costs and limited local supply in the region.

Figures from KazAvtoDor, the national road company, reveal that in January to August 2025 alone, around 664,300 tons of bitumen were consumed in constructing and renewing national and municipal road networks. Of this total, about 155,000 tons were imports — emphasizing Kazakhstan's ongoing necessity for external supply when domestic demand remains strong.

For October, the production agendas of major local plants are being resha-

ped to accommodate seasonal reality. Caspi Bitum will have the capacity to produce around 40,000 tons, down by 35% from its September target. Pavlodar Oil Refinery also plans 47,000 tons, down 10% from the previous month's target, and Qazaq Bitum sees itself producing at the same capacity of 26,000 tons, just short of the prior schedule. Combined, these figures total Kazakhstan's October planned production to 113,000 tons — well below the September plan (136,300 tons) and September production (118,041 tons).

The October update to Kazakhstan bitumen production is evidence of a typical seasonal readjustment in the industry, holding supply over weakening December demand. Domestic output is constricting but being held up by consistent underlying infrastructure investment and an acceptable import stream from neighboring Russia. Production rates, analysts report, should recover in early spring 2026 once asbuilts resume and regional temperature conditions allow.

In general, Kazakhstan's bitumen sector has operational flexibility and market balance, modifying production schedules in response to climatic and economic fluctuations while ensuring constant supply to the road construction market.



A delegation from India has once again urged Washington to allow oil imports from Iran or Venezuela as a way to compensate for the decline in oil imports from Russia

delegation, who had traveled to Washington for discussions with U.S. authorities, repeated the same request, a source present at the negotiations said. Indian authorities warned that refusing the country access to three of its most important suppliers of oil-Russia, Iran, and Venezuela-would significant pressure on global prices.

The journey was undertaken as the United States imposed hefty tariffs on Russian oil imports. India continues to purchase oil from Russia but decreased amounts despite these restrictions. India's Minister of Commerce and Industry.

Piyush Goyal, also emphasized in New York that New Delhi is set to increase its acquisitions of oil and gas from America.

India gets nearly 90 percent of its oil imports, and cheaper oil from Russia has been helping the country reduce import costs. Import of Iranian oil had stopped since 2019, and India's biggest private refinery Reliance Industries also stopped buying oil from Venezuela this year with tightened U.S. sanctions. Whereas In-



dian refineries have the potential to import more oil from the Middle East, the alternative is much more expensive and puts more pressure on the overall import cost.

According to India's Ministry of Commerce statistics, the average July price paid by refineries for Russian oil stood at about \$68.90 per barrel, compared to Saudi oil at \$77.50 per barrel and U.S. oil at \$74.20 per barrel. India has emerged as the seaborne importer of Russian crude, while China remains the largest overall Russian oil importer, including pipeline shipments.



WALNUT SHELL MODIFIED BITUEMN

Amirhossein Akbari - R&D Manager at Bernet Pars Bitumen Company Hamidreza Ramezani - QC Manager at Bernet Pars Bitumen Company Taha Movahed - QA Expert at Bernet Pars Bitumen Company

https://www.bernetbitumen.com Info@bernetbitumen.com

Abstract

The development of sustainable and high-performance asphalt binders is a critical objective in modern pavement engineering. This study investigates the potential of using Finely Ground Walnut Shell Powder (WSP), an abundant agricultural waste product, as a bio-modifier for Performance-Graded (PG) bitumen. A PG 64-22 base binder was modified with WSP at concentrations of 3% and 7% by weight of bitumen. The rheological properties were evaluated through a series of tests including Dynamic Shear Rheometer (DSR) for high and intermediate temperatures, and Bending Beam Rheometer (BBR) for low-temperature performance. The results indicate that WSP acts as a significant rheological modifier. DSR tests showed a considerable increase in the complex shear modulus (G*) and a decrease in the phase angle (δ), enhancing the binder's resistance to rutting, as reflected in an increase in the Continuous PG high temperature. However, BBR tests revealed an increase in creep stiffness (S-value), suggesting a potential compromise in the binder's resistance to low-temperature cracking. The study concludes that WSP is an effective bio-modifier for enhancing the high-temperature performance of PG bitumen, though its impact on low-temperature properties must be





dard, represent a superior approach to bitumen characterization, linking material properties directly to field performance under specific traffic and climatic conditions. While polymer modification is common for enhancing PG grades, its cost and environmental footprint necessitate the exploration of eco-friendly alternatives.

Agricultural waste streams, such as walnut shells, present a promising opportunity. Walnut shells are Lignocellulosic materials with high hardness

> and stability. Their disposal poses an environmental challenge, making their valorization in construction materials highly attractive. Previous research has explored various bio--fillers in asphalt, but the specific impact of a finely ground walnut shell fraction on the fundamental rheology of PG bitumen remains underexplored.

BERNET PARS BITUMEN

Keywords: Walnut Shell , Performance-Graded (PG) Bitumen, Bio-Modifier, Rheological Properties, Rutting Resistance, Sustainable Pavement.

carefully considered in mix design for

1. Introduction

specific climatic zones.

The global push for sustainable infrastructure has intensified the search for renewable and waste-derived materials in road construction. Performance-Graded (PG) binders, specified under the AASHTO M320 stan-

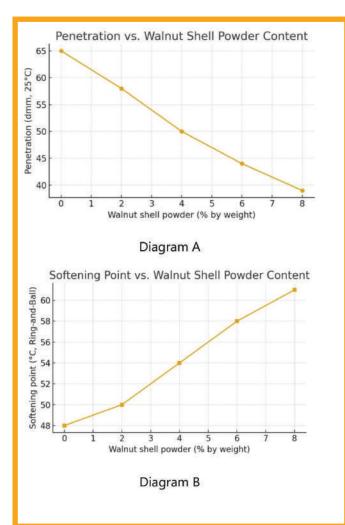
This research aims to fill this gap by systematically evaluating the effects of Finely Ground Walnut Shell Powder (WSP) on the rheological and chemical properties of a conventional PG 64-22 binder. The objective is to determine whether WSP can serve as a viable bio-modifier to improve high-temperature performance, assess its impact on intermediate and low-temperature properties, and understand the nature of its interaction with the bitumen matrix.

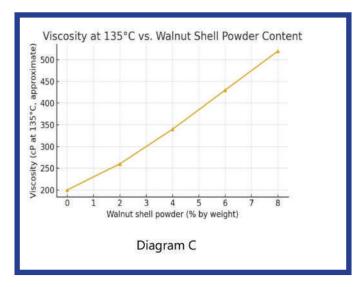


2. Materials and Methodology

2.1. Materials

- Base Binder: A Performance-Graded bitumen, PG
 64-22, was used as the control material.
- \bullet Walnut Shell Powder (WSP): Walnut shells were obtained from a local processing plant, washed, dried at 105°C for 24 hours, and then ground using a ball mill. The resulting powder was sieved to achieve a maximum particle size of 75 μm .





2.2. Sample Preparation

The base PG 64-22 bitumen was heated until fluid. The WSP was then added at two different concentrations: 3% and 7% by weight of the total binder

2.3. Testing Program

Rheological Characterization:

High-Temperature PG (AASHTO T315):

A Dynamic Shear Rheometer (DSR) was used to measure the complex shear modulus (G) and phase angle (δ) on unaged and Rolling Thin-Film Oven (RTFO)-aged residues. The parameter G/sin δ was used to determine the rutting resistance.

Intermediate-Temperature PG (AASHTO T315):

The same DSR test was conducted on Pressure Aging Vessel (PAV)-residues, using $G^* \cdot \sin \delta$ to evaluate fatigue resistance.

Low-Temperature PG (AASHTO T313):

A Bending Beam Rheometer (BBR) was used on PA-V-residues to measure creep stiffness (S) and m-value at low temperatures (-12°C & -18°C)

Storage Stability:

given that this material has good sepration improvment capabilities it can also be used as an auxiliary for other materials

3. Results and Discussion

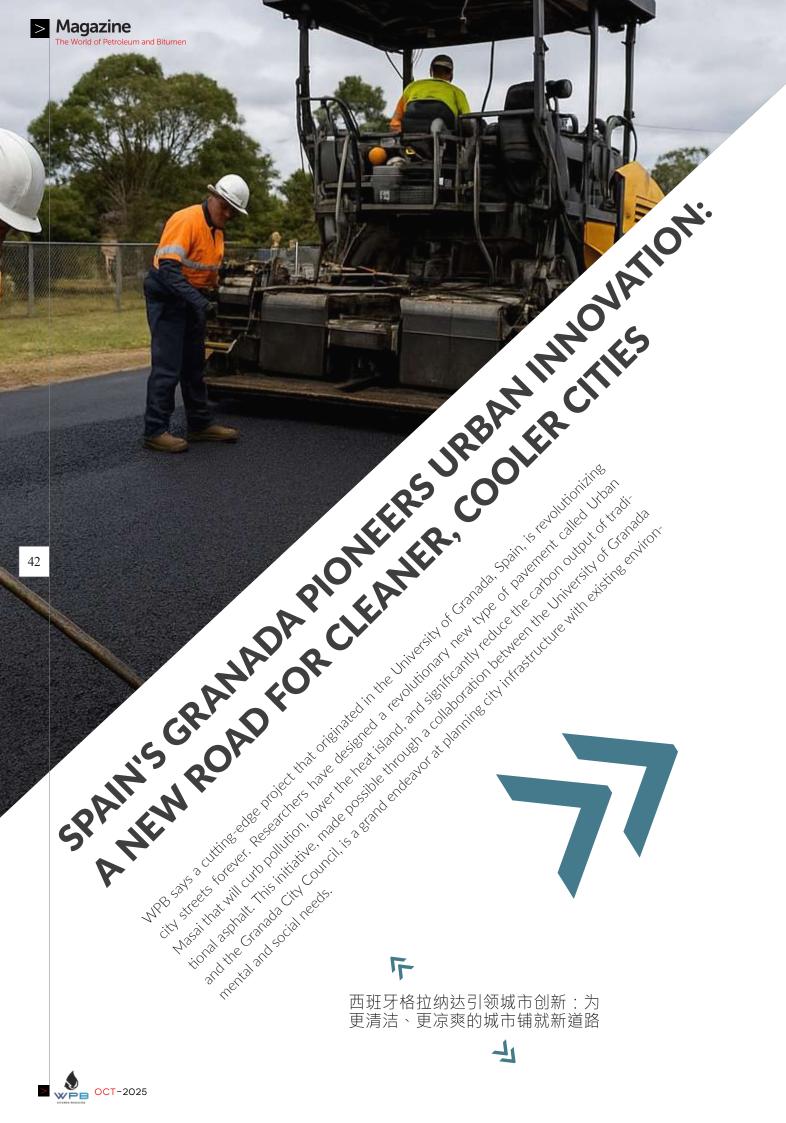
3.1. Effects of using walnut shell powder on Penetration, softening point and viscosity

Using walnut shell powder reduces permeability, increases softening point and viscosity. The effects of using walnut shell powder on permeability, softening point and viscosity are shown in the following diagram:



3.2. High-Temperature Rheological Properties

The DSR results for the RTFO-aged samples demonstrated a clear trend. The addition of WSP led to a significant increase in G^* and a decrease in δ . Consequently, the value of $G^*/\sin\!\delta$ increased for all modified binders compared to the control.



Italy is witnessing the advent of a game-changing highway technology that has the potential to transform urban infrastructure: self-healing asphalt powered by artificial intelligence. Developed by Seipa and in field trials, the material will repair cracks and pot-

the old paradigm of costly road maintenance is forgotten for one of intelligence infused directly into the material itself. They describe it as an unobtrusive yet powerful revolution—a revolution that is already present and not some far-off dream.



holes autonomously—an scourge long plaguing Italian roads and endangering drivers and pedestrians.

Seipa representatives speak of the project in terms beyond an upgrade from a purely technical perspective. It is, to them, "a deep change of mind" in which



The Science Behind the Asphalt

The project was initiated as a product of research conducted between the United Kingdom and Chile with Google Cloud providing vital digital infrastructure. At its core is a high-tech bitumen containing regenerative microcapsules. The capsules have





Autonomous Innovation in the Shipping Industry:





The HD Hyundai Group has taken a big leap in the establishment of maritime autonomy, WPB news reports, as the American Bureau of Shipping (ABS) issued Approval in Principle (AiP) for its new-generation autonomous system, VesselWise. The cutting-edge technology aims to enhance propulsion efficiency and operational steadiness in liquefied natural gas (LNG) carriers through data-driven, smart optimization.

Developed jointly by HD Korea Shipbuilding & Offshore Engineering (HD KSOE), HD Hyundai Heavy Industries (HD HHI), and HD Hyundai Marine Solution (HD HMS), VesselWise is a significant leap into the future of smart and autonomous vessels. It harmonizes diverse shipboard systems—such as air lubrication, wind-assisted propulsion gear, and generator engines—onto one digital control platform. Through the automation of actual operating data, it determines the best control strategies, thus improving fuel efficiency as well as overall ship performance.





UN Report Warns: Geopolitical Unrest and Tariff Policies Harden Shipping Industry Volatility

According to WPB, the global shipping industry is under severe turmoil as the world shipping routes are getting increasingly entangled in political strains and economic disputes. A sweeping analysis by the United Nations Conference on Trade and Development (UNCTAD) points out

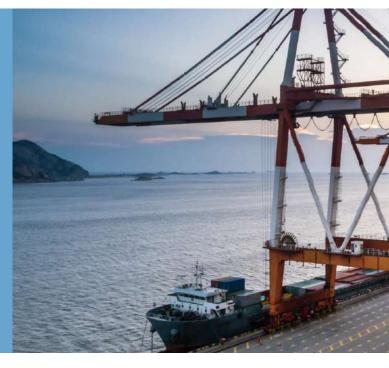
that recently imposed tariffs coupled with increasing hostilities have generated unprecedented uncertainty for shipping networks and worldwide supply chains.

The report emphasizes that the general trade environment has grown more vulnerable than has been the case in past decades. Downgraded manufacturing output in advanced economies, together with subdued raw material demand from China, has pushed UNCTAD to reduce its projections for maritime expansion during the coming year. Existing estimates anticipate a minimal 0.5%

yearly growth in total seaborne commerce, whereas containerized shipping is expected to post a slightly improved performance of about 1.4%.

At the heart of this volatility is not just economic slump but the dislocating impact of policy. New tariffs from the big economies have dislocated historic trade flows, re-directed ships and boosted lead times. The organization warns that these changes are not short-term aberrations but precursors to a structural realignment of the nature of maritime trade.

One of the most glaring manifestations of that instability is the reshaping of shipping routes. The war in Ukraine has rendered the Black Sea more dangerous by the day, and the fighting in the Middle East has forced most shipping lines to go around the Red Sea and take the much longer route through the Cape of Good Hope. This diversion not only incurs expenses but also lengthens transport schedules, causing a ripple effect across the world's economy. At the same time, heightened tensions between Iran and Israel have put the Strait of Hormuz—a shipping lane that transports over one-third of the world's seaborne petroleum exports—into increased danger of interference.





Paving the Way: Russia Makes the Turn to Automated Road Construction

WPB says this October, Russia will introduce a new revolutionary technology — an automated system for laying asphalt that could change the face of the road construction business in Russia.

In today's rapidly changing industrial landscape, automation is becoming a key component of nearly every manufacturing process. Road construction is no exception. Taking into account the vastness of Russia's geography and the diversity of climates,

highway construction and maintenance have been an ongoing and daunting endeavor at all times. Both the development of new roads and the repair and modernization of old ones during the same period of time require an enormous effort of human resources, machinery, and equipment. Ensuring stable technological quality under such conditions is often difficult.

The arrival of a new automatic asphalting system might revolutionize this situation. The innovation will make its traditional debut at the "Road 2025" exhibition and forum, organized in Mineralnye Vody. The organizers note that this system is a typically local achievement — de-

veloped and produced in Russia — which employs the latest telematics and machine vision technologies. These technologies enable autonomous coordination of rollers and asphalt pavers, reducing the need for

manual intervention and enhancing precision during paving.

Safety standards currently still require the presence of a human operator inside the vehicle cabin to



BITUMEN DRUM

Enhancing Road Construction Efficiency through Innovative Bitumen Drum Melting Systems

in bitumen processing technologies have basically raised efficiency and safety in modern road construction. One of the most important developments in this field is the use of bitumen drum melting systems, whose goal is to melt solid bitumen packed in steel drums into a usable liquid form with minimal waste and energy consumption.

A Smarter Method of Handling Bitumen Preferably, the majority of locations on earth transport and store bitumen in sealed steel drums for quality preservation as well as shipping ease. In order to be utilized for paving, waterproofing, or protective coating, the substance must be heat-melted back into the liquid form. Previously, this was accomplished through manual process or open-fire heating — operations that are time-consuming, unsafe, and inefficient.

Drum melting plants of today offer a totally enclosed, automated solution. Through the use of controlled heat—be it thermal oil circulation or diesel burners—the plants soften and melt bitumen efficiently without changing its chemical makeup. The bitumen is melted and filtered to remove impurities and then pumped into hot storage tanks for application and mixing into asphalt directly.

Efficiency and Safety as Underlying Pillars

Automation and indirect heating enable such systems to





Geopolitical Reset and Energy Market Dynamics - October 2025 Analysis

WPB's perspective is that October 2025 was dominated by the shadow of restored geopolitical tensions, especially following the E3 led a diplomatic effort that triggered the formal restoration of UN sanctions against Iran through the so-called "snapback" mechanism. The move, taken by Britain, France, and Germany, effectively reinstated all the sanctions lifted under the 2015 nuclear accord, a striking political and economic reversal of the world energy map.

Geopolitical Setting and Policy Shifts

In late September, the E3 officially concluded the 30-day process they initiated back in August, accusing Iran of non-compliance with its nuclear commitments. As a result, all pre-2015 United Nations Security Council sanctions automatically came back into force. The sanctions prohibit imports and exports of Iranian oil, natural gas, petroleum, and petrochemical products, and allow the inspection of vessels suspected of transporting Iranian energy cargoes.

At the same time, the European Union soon followed suit with these restrictions in its own policy, further tightening financial and trade restrictions on Tehran. These range from fresh asset freezes on Iran's Central Bank and select commercial businesses to bans on dual-use technology and energy-industry equipment. Yet, global responses remain haphazard: while the G7 and Canada endorsed the snapback action, China and Russia dismissed its validity and signalled their readiness to go ahead with energy cooperation with Iran.

The Iranian government maintains that the sanctions have little practical impact, arguing that actions by Washington already amount to the most restrictive regime possible. Tehran officials have vowed to keep exporting oil, chiefly to China, and argue that the new sanctions by the UN "place no meaningful constraints" on what has been a very sanctioned hydrocarbon industry for years.

Oil Market Reaction and Pricing Landscape

Even as diplomacy has been tumultuous, the oil market itself has remained strong. Numbers have indicated that a majority of Iran's crude, nearly 80%, has been headed to Chinese consumers in the past year, a pattern which is predominantly intact. Chinese refiners accustomed to playing cat and mouse with American sanctions continue buying Iranian barrels at steep discounts, solidifying the two countries' bond ever deeper.

Experts anticipate that the new UN moves will not sufficiently constrain Iranian exports. They may, however, provide Chinese with better bargaining power to secure even more favorable terms. Shipping and trade quarters point out that the Iranian crude is still flowing largely unabated, with a majority of Iran's oil making it through through complex supply chains and mixed shipments that conceal its origin.

Remarkably, crude oil prices in early October have not surged despite the geopolitical tension. Meanwhile, Brent crude dropped to the mid-\$60s per barrel—the lowest in four months—due in part to market focus on OPEC+ production plans and subdued global demand forecasts. While a modest risk premium continues to be factored into prices, levels of supply are now sufficient. But the market is still poised: any escalation of Middle East tensions or maritime incidents off the Strait of Hormuz could reverse the sentiment and prices sharply.

China's Central Role in Trade Patterns

China remains the pivotal figure in this equation. By maintaining its crude purchases around 20% lower than the benchmark, Beijing enjoys a steady supply of bargained oil while insulating itself against the volatility risk of Western sanctions. Because both China and Russia disregard the UN embargo, the actual effect of snapback sanctions on global energy trade is zero. There are even certain market participants who suggest Iranian crude could be rerouted or blended into regional exports, par-

Attention!

If you are interested in obtaining the complete edition of the magazine, please contact us via WhatsApp:

+447831423117



0



Ε

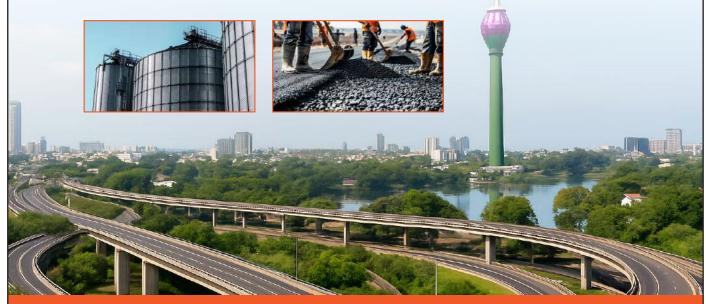


S

C

60

- Meet 100+ industry leaders, decision makers & policymakers
- Regional market intelligence across South Asia & Indian Ocean
- Network with refiners, traders, contractors & governments
- Latest trends in sustainability, roads & infrastructure investment
- **Exclusive insights from top experts**



Register Now: https://cconnection.org/sabit Contact: info@cconnection.org / abby@cconnection.org / events@helanka.co Tel: +65 6338 0064 / +94 7131 82912



ROADS & TRAFFIC TECH EXPO (MYARTTE)

KUALA LUMPUR

2025





MINISTRY OF WORKS MALAYSIA







Asia's most Innovative Conference & Exhibition on Roads, Traffic & **Transport Technology**

3 - 5 NOV 2025

MALAYSIA INTERNATIONAL TRADE & EXHIBITION CENTRE KUALA LUMPUR, MALAYSIA

Jointly Organised with MYARTTE

KONVENSYEN PENYENGGARA JALAN SEMALAYSIA (MRMC) 2025

MALAYSIAN ROAD MAINTENANCE CONVENTION (MRMC) 2025



Strategic Partner











In collaboration with







Organised by

Supported by





























第十六届沥青



Exhibition of Bitumen | Asphalt Cement , Concrete Insulations & Related Machinery | Tehran Int'l. Permanent Fairground | 1-4 February 2026





- ①+989120398226 Email | info@ampex.ir @ @baiexir

THE INTERNATIONAL EXHIBITION OF OIL & GAS COMPANIES, TECHNOLOGIES SUPPORTING INDUSTRIES



15-17 OCTOBER 2025 **AURORA EVENT CENTER**

169 THUY VAN ST., WARD 08, VUNG TAU CITY.

"Meet Vietnam's Major Oil & Gas Players Here!"



International C-level Oil & Gas Conference



Oil & Gas Safety Workshop



Technology Seminars



Happy Hour Networking

















www.oilgasvietnam.com (1) (+84) 28 6654 9268



info@fireworksviet.com













Bitumen and Road Conference Bituroad 2025 26-27 Nov, 2025, Hanoi

L7 HOTELS BY LOTTE WEST LAKE HANOI, VIETNAM





New Frontiers, Demand Hubs and Next Level Networking

MARK YOUR CALENDAR!

5th AMEA Bitumen, Base Oil and Logistics Convention & Exhibition

will be held on October 29th, 2025

Conrad Dubai

Organized By



www.amea-conventions.com

BOOK NOW & SAVE 25%

Early Bird Fees! Register By 20th Sept, 2025



HIGHEST QUALITY IN PRODUCTION
PROFICIENT IN LOGISTIC OPERATIONS
VARIETY IN PACKING



NEW STEEL DRUMS, JUMBO BAGS, FLEXITANKS,

AND ALSO BULK



www.hormozan.com





Bitumen Manufacturer, Cutback, Viscosity, Penetration and Performance grade

- Instagram/hormozan.group
- in LinkedIn/hormozan group
- Tel/(+98-21) 52 707
- Email/info@hormozan.com
- Fax/ (+98-21) 88 30 53 88
- Head Office/No.41, South
 Kheradmand St., Tehran, Iran.
- Factory/Hormozan St., North side of Bandar Abbas Refinery,
 Bandar Abbas, Iran.
- Export Terminal/Shahid Rajaee
 Port Complex, Bandar Abbas, Iran

