Mysteel Iron Ore Index Methodology

January 2024

Contents

Introduction

This document explains the methodology for the calculation and management of the Mysteel Iron Ore Indices ("the Indices" or "MIODEX" for short). The indices aim to reflect price changes in the physical iron ore market every day, and to provide an important pricing indicator for iron ore market participants.

Governance of the Mysteel Iron Ore Indices

To ensure that the Mysteel Iron Ore indices (the "Indices" or "Mysteel Indices") are constructed, maintained, and operated to the highest standards, the administrator of the Mysteel Indices, Shanghai Ganglian E-Commerce Holdings Co, Ltd., ("Shanghai Ganglian" or "the administrator", herein known as "Mysteel") employs a robust governance framework to manage the indices, approve new indices and approve changes to the methodologies of existing indices.

Mysteel Index Management Committee

The Mysteel Index Management Committee is responsible for the oversight of all aspects relating to the provision of the indices administered by Shanghai Ganglian E-Commerce Holdings Co., Ltd. Its members are drawn from Shanghai Ganglian management and staff. The Committee looks to ensure the Indices continually reflect market change and keeps their methodology under constant review to meet changing needs of the iron ore market.

The Index Management Committee uses sophisticated auditing and oversight mechanisms to ensure the calculation of the indices is undertaken strictly according to the index methodology.

The membership of the Committee, and its terms of reference, are approved by Shanghai Ganglian's Information Management Committee. In considering the Committee's membership, the Information Management Committee is required to ensure the Committee has the expertise and skills required to fulfil its role.

Index Calculation Responsibility

Day-to-day management of the Mysteel Indices is undertaken by the Mysteel Information Team and the Mysteel Index Team, responsible for data collection and index calculation respectively.

Consultations procedure

The Mysteel Index Management Committee shall assess the potential impact a material changes to, or cessation of an Index may have on users and stakeholders, and if appropriate and proportionate to the nature of the Index, may arrange for a survey of users and stakeholders to be undertaken to gather feedback. A decision to survey users and stakeholders will generally be taken by the Index Team. This can be in consultation with the Index Management Committee, including on its scope and duration. Notwithstanding this, any user or stakeholder is welcome to suggest changes to the Mysteel Iron Ore Index Methodology, by writing to the Index Team email address (miodex@mysteel.com), or to the Secretary of the Mysteel Index Management Committee (secretary_imc@mysteel.com).

Ongoing Review of Submitters

Submitters to the Mysteel Indices are required to accept a Code of Conduct and to sign an agreement with Mysteel specifying each party's responsibilities.

Mysteel additionally routinely reviews the companies involved in submitting data for use in the Mysteel Indices. These reviews ensure the suitability and reliability of the data Mysteel uses for index compilation. These reviews are conducted on a regular basis and may take into consideration an array of issues including, but not limited to, whether they have any direct or indirect conflicts of interest with Mysteel or Mysteel's staff, their credit rating, and both operational and logistical issues.

Reviews consider both individual submissions and each submitter's submission history.

Mysteel does not disclose the nature, scope or results of its routine reviews of submitters, other than as required by regulators or relevant market supervisory bodies.

General

Mysteel attaches great importance to confidentiality, and all employees must strictly abide by confidentiality rules, and never disclose any index compilation-related information, whether regarding index values, data or customers, unless required to by law. Mysteel strictly prohibits team employees from participating in transactions, offers, or bids as individuals or on behalf of market participants. They are also not permitted to provide market participants with free subscriptions or any other benefits in exchange for price or market information. A specific conflict of interest declaration is required annually by the Index Team employees, declaring that they have not benefited from non-public information.

Mysteel attaches great importance to the training of index team members to ensure they have the skills, knowledge and experience necessary to perform their specific responsibilities. Mysteel provides index team employees with various irregular and regular training, and strictly standardizes the training content for employees, from probation to confirmation, to ensure they understand and adhere to internal procedures and methodologies.

Objectives of the Mysteel Iron Ore Indices

Mysteel Iron Ore Seaborne Indices

The Mysteel Seaborne Forward Iron Ore Indices (SEADEX) represent a tradable fixed price among miners, traders and steel mills in the iron ore seaborne forward market. Submissions used in the calculation of these indices include miners' tenders, transactions from the main iron ore trading platforms, private negotiations, and transactions, bids and offers between traders and steel mills. The unit of the indices is US dollars per dry metric tonne ($/dmt). The smallest price volatility range is $0.05/dmt. All SEADEX indices and price assessments are a CFR Qingdao Port, China basis.

Mysteel Seaborne Iron Ore Indices

- 62% Australian Fines Index
- 62% Low Alumina Fines Index
- 58% Australian Fines Index

- 58% High Alumina Fines Index
- 65% Brazilian Fines Index
- 63% Indian Pellet Index
- 63.5% Indian Fines Index
- 58% Indian Fines Index
- 65% Sintering Concentrates Index
- 66% Concentrates Index
- 67% Pelletizing Concentrates Index

Mysteel Seaborne Iron Ore Premium Indices

The Mysteel Seaborne Iron Ore Premium Index mainly represents the transactions, bids, and offers among miners, traders and steel mills for certain premium products, especially the transactions, bids and offers for lump and pellet products. The unit of the lump premium index is US dollars per dry metric tonne unit, with the smallest price volatility range being $0.0001/dmtu. The unit of the pellet premium index is US dollars per dry metric tonne unit, with the smallest price volatility range being $0.05/dmt.

- 62.5% Lump Premium Index
- 63% NBL Premium Index
- 63% Indian Pellet Premium Index (base 62% index)
- 65% Pellet Premium Index (base 62% index)
- 65% Pellet Premium Index (base 65% index)
- 63% Pellet Premium Index (base 62% Index)

Mysteel Seaborne Iron Ore Brand Prices

The Mysteel Seaborne Fixed Iron Ore Brand Assessment represents the fixed price transactions, bids, and offers among miners, traders and steel mills for certain premium products. The unit of the index is US dollars per dry metric tonne, with the smallest price volatility range being $0.05/dmt.

- PBF Price
- NHGF Price
- MACF Price
- JMBF Price
- Yandi Fines Price
- SSF Price
- FBF Price
- Robe Valley Fines Price
- IOCJ Price
- BRBF Price

- PBL Price
- NBL Price
- Others

Mysteel Floating Iron Ore Brand Premium

The Mysteel Seaborne Floating Iron Ore Brand Premium Assessments represent the floating price transactions, bids and offers among miners, traders, and steel mills for certain iron ore products. The unit of the premium assessment is US dollars per dry metric tonne, with the smallest price volatility range being $0.05/dmt.

Mysteel Seaborne Floating Iron Ore Brand Premium to the 62% Fe Mysteel Fines Index

- PBF floating brand premium (Pilbara Blend Fines)
- NHGF floating brand premium (Newman High Grade Fines)
- MACF floating brand premium (Mining Area C Fines)
- JMBF floating brand premium (Jimblebar Fines)
- YF floating brand premium (Yandi Fines)
- IOC6 floating brand premium (IOC6)

Mysteel Seaborne Floating Iron Ore Brand Premium to the 62% Fe Low Alumina Mysteel Fines Index

- BRBF floating brand premium (Brazilian Blend Fines)

Mysteel Seaborne Floating Iron Ore Brand Premium to the 65% Fe Mysteel Fines Index

- IOCJ floating brand premium (Iron Ore Carajas Fines)

Mysteel Iron Ore Portside Indices

The Mysteel Portside Iron Ore Indices (PORTDEX) represent a Yuan basis tradable fixed price among miners, traders and steel mills in the iron ore portside market. Submissions used in the calculation of these indices include miner's tenders, transactions from the main iron ore trading platforms, private negotiations and transactions, bids and offers between traders and steel mills.

Mysteel Iron Ore Portside Indices

Mysteel Iron Ore Portside Indices reflect the prices of the spot cargos in Chinese ports on an RMB basis. They represent the tradable prices between domestic and international traders and mills. The samples include transactions from spot tenders by steel mills, main iron ore trading platforms, and transactions, bids and offers between traders and steel mills.

Mysteel publishes the iron ore portside indices for 8 Chinese ports, namely, Qingdao Port, Rizhao Port, Lianyungang Port, Caofeidian Port, Jingtang Port, Tianjin Port, Jiangyin Port, and Fangchenggang Port. The unit of the indices and brand prices is RMB yuan/wet tonne free on truck with the minimum trading volume 3,000 tonnes. The minimum variable unit is 1 yuan/wet tonne

- 62% Australian Fines Portside Index
- 65% Brazilian Fines Portside Index
- 58% Australian Fines Portside Index

61% portside iron ore index and 62% MNPJ portside iron ore index and their seaborne equivalent prices are based on Qingdao port.

Meanwhile, other port reference prices are published in the form of price difference, including Rizhao port, Jingtang port, Caofeidian Port, Tianjin Port, Lianyungang Port and Lanqiao port. 61% index and 62% MNPJ index is FOT (dry tonne price with tax) in yuan/dry tonne, and their seaborne equivalent prices are CFR (dry tonne price without tax) in US dollar/dry tonne.

- 61% Portside Iron Ore Index
- 61% Portside Iron Ore Index-Seaborne Equivalent
- 62% MNPJ Portside Iron Ore Index
- 62% MNPJ Portside Iron Ore Index-Seaborne Equivalent

Mysteel portside lump premium reflects premiums of lumps over 62% Australian Fines Portside Index per Fe content. Mysteel publishes the iron ore portside in Qingdao port. The samples include transactions from spot tenders by steel mills, main iron ore trading platforms, and transactions, bids and offers between traders and steel mills. The unit of the 62.5% Portside Lump Premium is RMB per dry metric tonne unit.

- 62.5% Portside Lump Premium
- 62.5% Portside Lump Premium-Seaborne Equivalent

Mysteel Portside Iron Ore Brand Price

Mysteel Portside Iron Ore Brand Price represent the transactions price of each specific product of miners.

Mysteel Portside Iron Ore Brand Prices are assessed at 18 domestic ports across China: Tianjin Port, Jingtang Port, Caofeidian Port, Huanghua Port, Dalian Port, Bayuquan Port, Qingdao Port, Rizhao Port, Lanshan Port , Lanqiao Port, Lianyungang Port, Taicang Port, Jiangyin Port, Zhenjiang Port, Beilun Port, Fangchenggang Port, Zhanjiang Port and Keman Port.

The products include:

- PBF portside brand price
- JMBF portside brand price
- NHGF portside brand price
- MACF portside brand price
- IOCJ portside brand price
- BRBF portside brand price
- SSF portside brand price
- FBF portside brand price
- YDF portside brand price
- Other non-mainstream products

The smallest price volatility range is 1 yuan/WMT, minimum trading volume is 3,000 tones (see Appendix A: Chemistry Specification for Iron Ore Brand Price)

Principles of Sample Collection

Submission Sources

Mysteel collects transaction, bid and offer prices submitted by major overseas miners, domestic Chinese and overseas trading companies and steel mills.

Mysteel also collects transaction, bid and offer prices from major iron ore spot trading platforms and other market participants. However, Mysteel will only use prices from those spot trading platforms when at least one party to the transaction, bid or offer been confirmed, as well as the purpose of the trade.

Methods of Sample Collection and Collection Periods

Mysteel accepts information provided for publication in real-time across a wide variety of media. Methods of sample collection include, but are not limited to:

1. Telephone (recorded phone lines)
2. Email
3. Other instant-communication tools, such as Wechat (company owned accounts) and Enterprise WeChat
4. Industry trading screens

SEADEX Data Collection Window

Mysteel has a 24-hour data collection window. All of the samples collected are from 6:16 pm the day before to 6:15 pm on the day of the assessment. If the data is collected after 6:15 pm on the day, it will automatically be used as a sample for the next day.

PORTDEX Data Collection Window

Mysteel data collection window for the PORTDEX indices is from 8.30 am to 5.30 pm daily.

Submission Types

1. Confirmed transactions
2. Reported transactions sourced from market participants
3. Indicative values
4. Firm bids that are open to the market
5. Firm offers that are open to the market
6. Other data that is relevant to the iron ore price, such as supply & demand fundamentals and other factors affecting the iron ore price

Submission Detail

Mysteel strictly controls the submission and collection process, and only considers transactions, offers and bids that follow standard contract terms. Mysteel not only collects the submitted trade price, but also any significant additional information, including payment, logistics and eventual delivery timing of the product. If necessary, Mysteel may require the submitter to provide relevant documents to determine the fulfillment of the contract and to verify the validity of data.

Mysteel uses transaction settlement Prices to compile the Mysteel Iron Ore Indices. All the repeatable and tradable sample prices are included in Mysteel's submission storage system.

Mysteel looks to collect as much data as possible, including transactions, offers, bids and chemical specifications of samples. Mysteel confirms and analyzes submissions as deeply as possible and encourages all market participants to become submitters to the Mysteel Indices, as more extensive data will ensure an index that reflects true market value.

Mysteel's sample collectors and Index Team aim to collect comprehensive information related to iron ore price, including trading activities, final prices, both parties, origin, delivery port, quantity, contract items and delivery time, etc. They are trained to judge the authenticity of submissions when received.

Mysteel verifies details of each transaction, bid and offer submission, including product type, chemical specifications, origin, quantity, price, laycan, loading port, arrival date and delivery port, so as to ensure the authenticity of each Mysteel Iron Ore Index sample. All of the submissions obtained from the market are recorded accurately and in detail to ensure high quality and reliability.

Submissions received that do not fully adhere to Mysteel's defined requirements may not be incorporated into the index calculation.

Record keeping

Mysteel maintains records of all communications with submitters, whichever collection channel is used: telephone, email or internet-based instant-communication tools, in order that all submissions used in the indices can be traced back to an original record of the received submission.

Submissions are stored in Mysteel's secure storage system to ensure the confidentiality of data, and to prevent the improper usage of the data by parties not involved in the index calculation process.

Normalization and Calculation

SEADEX

Sample Screening

The Mysteel data process team undertakes a preliminary screening of all collected submissions. In addition to checking the basic information of each submission, such as brand, quantities, delivery date, delivery port, delivery terms and price, Mysteel also confirms details with at least one party to the reported transaction, to ensure the sample's authenticity.

Submissions that pass the preliminary screen are divided into four groups according to their sources: transactions, tradeable price, bids and offers.

Sample Normalization

Mysteel normalizes the four groups of submissions according to typical values of sample type, chemical specifications, laycan date and port differentials, etc.

Other main chemicals contained within submissions (such as Silica, Alumina, Sulphur, Phosphorus and moisture) that are beyond the permissible Mysteel Index standard ranges will be excluded from the normalization procedure.

Mysteel has set the chemical specifications of different brands of iron ore according to miners' publications or contract value, as well as using information from the market. These specifications are updated at least annually which is dictated by changes in the market.

Transactions, offers and bids for different delivery ports in the seaborne forward market (such as Caofeidian, Tianjin, Beilun, Zhanjiang and Fangchenggang, etc.) will be converted to the Mysteel Index benchmark port (Qingdao) according to transportation fee spreads applying between the port and Qingdao at that point of time.

For seaborne cargoes, samples exclude those cargoes whose laycan or delivery period is too short or too long. Laycan should be within four weeks after the date of issue, or the delivery period should be within 2-8 weeks after the date of issue.

If the normalized price of one submission in a group is significantly abnormal compared with the remaining post-normalization group submissions, Mysteel will seek to reconfirm the details of the sample. If the submission's data is incomplete, opaque, there is disagreement between the two parties to the transaction or the normalization result significantly bias from market level, the submission sample will be removed.

Once all the samples are confirmed valid, they are passed on for index calculation.

Weighted Calculation

General Index calculation

Mysteel aims to provide the market with a typical price assessment which accurately tracks daily price changes. Therefore, where sufficient submissions are available, each final index is a volume weighted average of normalized transaction samples. However, the Index Team will refer to the Mysteel Data Hierarchy and will prioritize higher confidence samples.

If the number of transaction submissions for a particular index is not considered sufficient, Mysteel will also use tradeable price, bid and offer submissions, and in this case three volume-weighted prices will be calculated, for transactions, bids and offers.

Concentrate Indices Calculation

The samples of 65% sintering concentrate index only include those concentrates that used to be sintered. The samples of 67% pelletizing concentrate only include those concentrates used to be pelletized. There are no requirements for the samples used to calculate Mysteel 66% concentrates index.

Mysteel normalizes the samples' prices by quality differentials adjustment. The weighted volume average is calculated first for transactions, bids and offers, then fixed weight for transactions, bid and offer, is applied.

Lump Premium Calculation

This valuation is a premium for lump ore price relative to fine ore. Price information is obtained directly from the market or is the differential between the lump ore and fines which is converted into a premium in the unit of dmtu.

Pellet Premium Calculation

This valuation is a premium to the price of blast furnace pellets relative to fine ore. Price information is obtained directly from the market or is the differential between the pellets and the fines which is converted into a premium in the unit of dry tonnes.

Referring to the transaction, tradable price, offer and bid of pellets in fixed or index price. Normalize Fe, Si and Al based on Mysteel quality differential. Sample for 63% mainly refer to the Indian pellet fixed price, adjust by its quality.

Seaborne Brand Price Calculation

Mysteel Brand Prices are a tradeable price which reflects the current market value for each product. Samples are collected from the market based on the Mysteel data hierarchy and submitter hierarchy. For seaborne brand prices, the samples are normalized for Fe grade and timing. The normalization process is the same as for the 62% Mysteel Iron Ore Index.

PORTDEX

Sample Screening

The Mysteel portside group undertakes a preliminary screening of all collected submissions. In addition to checking the basic information of each submission, such as quantity, brand, port and price, Mysteel also confirms details with at least one party regarding the reported transaction, to ensure the sample's authenticity. Mysteel collects market information from market participants via phone call, email and social communication software as well as from the trading platforms COREX and the Mysteel Physical Brokerage Whiteboard.

Submissions that pass the preliminary screen are divided into three groups according to their sources: transactions, bids and offers.

Sample Normalization

Mysteel normalizes the submissions according to typical values of sample type, chemical specifications, etc.

Mysteel determines the chemical specification of different brands based on information advised by iron ore producers, by the observed contractual value, or by data obtained from the market. The specifications are usually updated quarterly as dictated by the market and the change in the product grades delivered to Chinese ports. If iron ore producers submit official advice of a grade change Mysteel will reflect this change withing two weeks of receipt. All portside brand assessments and indices are assessed in Yuan/wmt.

Other main chemicals contained within submissions (such as Silica, Alumina, Sulphur, Phosphorus and moisture) that are beyond the permissible Mysteel Index standard ranges will be excluded from the normalization procedure.

If the normalized price of one submission in a group is significantly abnormal compared with the remaining post-normalization group submissions, Mysteel will seek to reconfirm the details of the sample. If the submission's data is incomplete, opaque, there is disagreement between the two parties to the transaction or the normalization result significantly bias from market level, the submission sample will be removed.

Once all the samples are confirmed valid, they are passed on for index calculation.

Weighted Calculation

Mysteel Portside Brand Prices

Mysteel Portside Brand Prices are a tradeable price which reflects the current market value for each product. Samples are collected from the market based on the Mysteel data hierarchy and submitter hierarchy and reflect trades, bids and offers that have happened in the market each day. For portside brand prices, samples are normalized for Fe and moisture. The normalization process is the same as for the 62% Mysteel Iron Ore Index.

Exercise of expert judgement

During times of market stress, disruption or low market liquidity, Mysteel retains the right to use Expert Judgement where insufficient submissions have been received, including referring to other market information such as supply and demand fundamentals, and other factors that affect the iron ore price.

Index Publication

SEADEX

Mysteel publishes the Mysteel Seaborne Indices on each working day in Singapore and China. This may include Saturday and Sunday publication in the periods around national holiday's observed in China. The publication is carried out simultaneously via Mysteel's English (Mysteel.net) and Chinese-language (mysteel.com) websites, Mysteel Database, Mysteel Iron Ore Index Daily Report, Mysteel Iron Ore Evening Post and mobile phone apps. Mysteel publishes the indices to the websites as soon as the assessment of all the iron ore indices are complete.

A rationale to explain the published benchmark determination is published to the Mysteel Iron Ore Daily Report. This includes a summary of the data utilized in the determination, any exercise of judgement, and data exclusions if any.

PORTDEX

Mysteel publishes the Mysteel Indices on each working day in China. This may include Saturday and Sunday publications in the periods around national holiday's observed in China. The publication is carried out simultaneously via Mysteel's English (Mysteel.net) and Chinese-language (mysteel.com) websites, Mysteel Data Bank, Mysteel Iron Ore Index Daily Report, Mysteel Iron Ore Evening Post and mobile phone apps. Mysteel publishes the indices to the websites as soon as the assessment of all the iron ore indices are complete.

Statement of Special Circumstances

The publication time may also be affected by various emergencies and by force majeure, such as blackouts, natural disasters, and terrorist activities. If this happens, Mysteel will make every effort to issue an announcement at the earliest opportunity.

Corrections

If an error is identified whether caused by an incorrect submission or a calculation error, Mysteel will promptly issue a public notice to modify the erroneous index value.

Requests for Data Clarifications

Mysteel aims at all times to provide the highest quality service to its customers. Customers may ask questions about Mysteel's sample collection methods, calculation methods, normalization processes, and more.

If market participants require additional information, such as a detailed description of data or of calculation methods, please contact us at mysteel.net/contact, or email miodex@mysteel.com.

Complaints

Customers or stakeholders wishing to complain about an aspect of Mysteel’s provision of the Mysteel Indices may do so. Full details of how Mysteel handles complaints can be found in Mysteel’s Complaints Policy. Both this and a Disclosure to Complainants are available by emailing complaints@mysteel.com or on the Mysteel Complaints page https://www.mysteel.net/complaints.html

Appendix A: Key Index Chemical Specifications Used in Normalization

SEADEX

The content listed in this section is the latest version at the time of publication. All indices are on a CFR basis unless stated otherwise.

Name	Typical Value	Quantity (T)	Dimensions	Destination Port	Timing	Payment Terms	UOM
62% Australian Fines Index	62% Fe, 8% moisture, 4.5% silica, 2% alumina, 0.10% phosphorus, 0.02% sulfur	Min.30,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmt
62% Low Alumina Fines Index	62% Fe, 8% moisture, 5% silica, 1.5% alumina, 0.10% phosphorus, 0.02% sulfur	Min.30,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmt
58% High Alumina Fines Index	58% Fe, 8% moisture, 6.2% silica, 3% alumina, 0.08% phosphorus, 0.04% sulfur	Min.30,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmt
58% Australian Fines Index	58% Fe, 9% moisture, 6% silica, 1.5% alumina, 0.05% phosphorus, 0.02% sulfur	Min.30,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmt
65% Brazilian Fines Index	65% Fe, 9% moisture, 1.7% silica, 1.5% alumina, 0.08% phosphorus, 0.01% sulfur	Min.30,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmt

Name	Typical Value	Quantity (T)	Dimensions	Destination Port	Timing	Payment Terms	UOM
65% Sintering Concentrates Index	65% Fe, 8.5% moisture, 5.5% silica, 0.5% alumina, 0.05% phosphorus, 0.05% sulfur	Min.30,000	Granularity max size >80% <0.15mm	Qingdao	----	L/C at sight	$/dmt
66% Concentrates Index	66% Fe, 8.5% moisture, 4.5% silica, 0.8% alumina, 0.03% phosphorus, 0.03% sulfur	Min.30,000	Granularity max size >80% <0.15mm	Qingdao	----	L/C at sight	$/dmt
67% Pelletizing Concentrates Index	67% Fe, 8.5% moisture, 5% silica, 0.6% alumina, 0.05% phosphorus, 0.05% sulfur	Min.30,000	Granularity max size >80% <0.15mm	Qingdao	----	L/C at sight	$/dmt
63% Indian Pellet Index	63% Fe Indian blast furnace pellet CFR China, 4% silica, 3.2% alumina, 0.01% phosphorus, 0.01% sulfur, CCS 220KG	Min.30,000	Maximum sizing of 5% under 5mm	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmt
58% Indian Fines Index	58% Fe, 12% moisture, 5% silica, 4.5% alumina, 0.08% phosphorus, 0.04% sulfur	Min.30,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmt
63.5% Indian Fines Index	63.5% Fe, 8% moisture, 3% silica, 3% alumina	Min.30,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmt

Name	Typical Value	Quantity (T)	Dimensions	Destination Port	Timing	Payment Terms	UOM
62.5% Lump Premium	62.5% Fe, 4% moisture, 3.5% silica, 1.5% alumina, 0.075% phosphorus, 0.04% sulfur	Min.30,000	Sizing of max 15% <6.3 mm and max10%>40 mm	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmtu
63% Pellet Premium	63% Fe blast furnace pellet CFR China, 9% silica, 0.45% alumina, 0.04% phosphorus, 0.04% sulfur, CCS 240KG	Min.30,000	Maximum sizing of 15% under 5mm	Qingdao	---	L/C at sight	$/dmt
65% Pellet Premium	65% Fe blast furnace pellet CFR China, 5% silica, 0.35% alumina, 0.02% phosphorus, 0.003% sulfur, CCS 250KG	Min.30,000	Maximum sizing of 15% under 5mm	Qingdao	---	L/C at sight	$/dmt
63% Indian Pellet Premium	63% Fe Indian blast furnace pellet CFR China, 4% silica, 3.2% alumina, 0.01% phosphorus, 0.01% sulfur, CCS 220KG	Min.30,000	Maximum sizing of 5% under 5mm	Qingdao	Delivery within 2-8 weeks from publication date	L/C at sight	$/dmt

PORTDEX

All portside brand assessments and indices are assessed in Yuan/wmt.

Specifications of PORTDEX Indices

Name	Typical Value	Quantity (T)	Dimensions	Availability	UOM
62% Australian Fines Portside Index	62% Fe, 8.5% moisture, 4% silica, 2.3% alumina, 0.09% phosphorus, 0.02% sulfur	Min.3,000	Granular size of up to 10mm for up to 90% of cargo	Published at 8 ports	Yuan/wmt
62% Australian Fines Portside Index USD Seaborne Equivalent	62% Fe, 8.5% moisture, 4% silica, 2.3% alumina, 0.09% phosphorus, 0.02% sulfur	Min.3,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	$/dmt
58% Australian Fines Portside Index	58% Fe, 9% moisture, 6% silica, 1.5% alumina, 0.05% phosphorus, 0.02% sulfur	Min.3,000	Granular size of up to 10mm for up to 90% of cargo	Published at 8 ports	Yuan/wmt
65% Brazilian Fines Portside Index	65% Fe, 8% moisture, 3% silica, 1.2% alumina, 0.06% phosphorus	Min.3,000	Granular size of up to 10mm for up to 90% of cargo	Published at 8 ports	Yuan/wmt
62.5% PORTDEX Lump Premium	62.5% Fe, 4% moisture, 3.5% silica, 1.5% alumina, 0.075% phosphorus, 0.04% sulfur	Min 3,000	-	Qingdao	Yuan/dmt
62.5% PORTDEX Lump Premium – Seaborne Equivalent	62.5% Fe, 4% moisture, 3.5% silica, 1.5% alumina, 0.075% phosphorus, 0.04% sulfur	Min 3,000	-	Qingdao	$/dmt

61% Portside Iron Ore Index	61% Fe, 4.5% silica, 2.5% alumina, 0.1% phosphorus, 0.03% sulfur	Min.3,000	Granular size of up to 10mm for up to 90% of cargo	Published at 7 ports	Yuan/dmt
61% Portside Iron Ore Index – Seaborne Equivalent	61% Fe, 4.5% silica, 2.5% alumina, 0.1% phosphorus, 0.03% sulfur	Min.3,000	Granular size of up to 10mm for up to 90% of cargo	Published at 7 ports	$/dmt
62% Australian Fines Portside Index (MNPJ)	62% Fe, 4% silica, 2.4% alumina, 0.1% phosphorus, 0.02% sulfur	Min.3,000	Granular size of up to 10mm for up to 90% of cargo	Published at 7 ports	Yuan/dmt
62% Australian Fines Portside Index (MNPJ) USD seaborne equivalent	62% Fe, 4% silica, 2.4% alumina, 0.1% phosphorus, 0.02% sulfur	Min.3,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	$/dmt
62% Australian Fines Portside Index **&** 62% Australian Fines Portside Index (MNPJ) CNH equivalent	Same with the original index	Min.3,000	Granular size of up to 10mm for up to 90% of cargo	Qingdao	CNH/wmt CNH/dmt

Chemical Specifications of major PORTDEX Brands

Brand	Fe	Si	Al	P	S	Moisture	Granular size		Quantity
PBF	61.50%	3.80%	2.30%	0.100%	0.020%	8.50%	< 6.3mm	90%min	Min. 3,000
NHGF	62.50%	4.10%	2.40%	0.085%	0.015%	7.50%	< 6.3mm	90%min	Min.3,000
MACF	61.00%	4.60%	2.20%	0.085%	0.025%	7.50%	< 6.3mm	90%min	Min.3,000
JMBF (59.5%)	59.50%	4.90%	3.50%	0.120%	0.020%	7.20%	< 6.3mm	90%min	Min.3,000
JMBF (60.5%)	60.50%	4.10%	2.90%	0.120%	0.020%	7.00%	< 6.3mm	90%min	Min.3,000
IOCJ	65.00%	1.70%	1.20%	0.070%	-	8.00%	< 10mm	90%min	Min.3,000
BRBF (62.5%)	62.50%	5.00%	1.50%	0.070%	-	8.50%	< 10mm	90%min	Min.3,000
BRBF (63%)	63.00%	5.00%	1.50%	0.070%	-	8.50%	< 10mm	90%min	Min.3,000
FBF	58.50%	5.70%	2.50%	0.065%	0.035%	7.50%	< 10mm	90%min	Min.3,000
SSF	56.50%	6.20%	3.10%	0.055%	0.030%	8.50%	< 10mm	90%min	Min.3,000
Royhill F	61.00%	4.90%	2.30%	0.035%	0.060%	9.00%	< 6.3mm	90%min	Min.3,000
Robe Valley F	57.00%	5.60%	3.10%	0.040%	0.020%	8.50%	< 6.3mm	90%min	Min.3,000
SP10 F	58.50%	5.40%	3.40%	0.12%	0.03%	8.50%	< 6.3mm	90%min	Min.3,000

Appendix B: Revisions and Updates

1. January 2013: 65% Brazilian Fines Seaborne Index was added.
2. December 2013: 62.5% Lump Premium Seaborne Index, 65% and 63% Pellet Premium Seaborne Index were added.
3. October 2014: Sample collection standard was revised, typical value of the moisture content was updated, and data collection traces were added to ensure each step is traceable.
4. October 2015: Index release time was revised, and the index was released on both workdays of China and Singapore. The minimum change unit of the index was adjusted to US$0.05 per dry tonne. Delete the valuation part of the original methodology and use the most reliable method that the market research considers obtaining the index.
5. October 2017: The phosphorus of 65% Brazilian Fines Seaborne Index was revised, per 1% value of phosphorus within 0.1-0.12% range was added.
6. April 2018: the typical value of the chemical element of 58% Australian Fines Index was revised. At the same time, collection standards were standardized, the sample data storage, corrections, and complaint methods were improved and the premium standard of silicon, aluminum, and phosphorus were added.
7. July 2018: Floating prices samples were introduced into the index calculation, and brand prices, iron content, silica and alumina normalization methods were added.
8. November 2018: Edit methodology based on IOSCO principle requirements. Added 62% Low Alumina Index contents.
9. March 2019: Addition of Newman Blend Lump Premium.
10. May 2019: Change in close of market time from 5.30pm to 6.15pm, removal of publishing time.
11. July 2019: Seaborne Floating Iron Ore Brand Premium Assessments were added to the SEADEX suite of indices. This includes five brands PBF, NHGF, MACF, JMBF, YF.
12. October 2019: Seaborne Floating Iron Ore Brand Premium Assessments were added to the SEADEX suite of indices for the brands BRBF and IOCJ.
13. December 2019: Major revision to include more detail on the PORTDEX brand assessments and indices. Included more data on publishing outlets for the index data, including Bloomberg and Mysteel Data Bank. Included detail on the Index rationale for SEADEX which is published on Mysteel.net. Removed the section referring to the Index Advisory Committee until it is fully established.
14. July 10, 2020: We add the content of concentrate and pellet in methodology. We will consider more information in our normalization process, likes payment method and brand. We deleted some portside indices which will not be treated as indices due to the liquidity..
15. September 2020: We reedit the specification of Mysteel Brazilian fines 65% index.
16. October 2020: We remove the description about 56% and 52% Indian fines index.
17. April 2021: We add portside lump premium calculation methodology.
18. July 2021：Addition of relevant calculation for 61% portside iron ore index.
19. February 2022, Addition of seme details of pellet index and premium, such as the chemical specifications; Update the details of instant messaging.

20. April 2022, Update some content details of some portside indices, such as the change unit of index and base port.
21. May 2022, Addition the new floating brand premium of IOC6.
22. October 2022， Addition of new introduction of Mysteel 62%MNPJ Portside Index and its seaborne equivalent; Supplementing Mysteel 65% and 66% Concentrates Indices in Mysteel Seaborne Iron Ore Indices; Revised the detailed description of the index publication.
23. December 2022, Standardized the 62% Portside Index (MNPJ); Addition CNH equivalent prices of Portside Indices.
24. April 2023, Addition the new price of Kemen port.
25. August 2023, Update the part of seaborne concentrates indices methodology.
26. October 2023, Addition the new introduction of Mysteel 58% high alumina index.
27. January 2024, Updating some of the descriptions in the methodology and updating the specifications of different brands.

Version	Revision Description	Revision Date	Revision Author
V 1.0	First Version	01/07/18	M. Chen
V1.1	Update to IOSCO	15/11/18	Z. Huang
V 1.2	Addition of new indices	15/03/19	A. Arnold
V 1.3	Close of market edit	06/05/19	A. Arnold
V 1.4	Addition of floating brands	08/07/19	A. Arnold
V 1.5	Addition of floating brands	08/10/19	A. Arnold
V 2.0	Portside indices	23/12/19	A. Arnold
V 2.1	Addition of concentrate.	10/7/20	Zeyu Huang
V 2.2	Modify 65% index	1/9/20	Zeyu Huang
V 2.3	Remove two Indian fines index	16/10/20	Zeyu Huang
V 2.4	Addition of portside lump premium	26/4/2021	Leo Gong
V 2.5	Addition of portside 61% index	16/7/2021	Leo Gong
V 2.6	Addition of seme details of pellet index and premium, such as the chemical specifications; Update the details of instant messaging.	25/2/2022	Albert Peng
V 2.7	Update some content details of some portside indices, such as the change unit of index and base port	14/4/2022	Albert Peng & Ailsa Hu

V2.8	Addition of the floating premium of IOC6	25/5/2022	Albert Peng
V2.9	Addition of new introduction of Mysteel 62%MNPJ Portside Index and its seaborne equivalent; Supplementing Mysteel 65% and 66% Concentrates Indices in Mysteel Seaborne Iron Ore Indices and revised the detailed description of the index publication.	26/10/2022	Albert Peng
V3.0	Standardized the 62% Portside Index (MNPJ); Addition CNH equivalent prices of Portside Indices.	14/12/2022	Albert Peng
V3.1	Addition the new price of Kemen port.	18/4/2023	Albert Peng
V3.2	Update the part of seaborne concentrates indices methodology.	1/8/2023	Albert Peng
V3.3	Addition the new introduction of Mysteel 58% high alumina index.	8/10/2023	Albert Peng
V3.4	Updating some of the descriptions in the methodology and updating the specifications of different brands	19/01/2024	Albert Peng