

# Industrial Minerals forecasts



Methodology and price  
specifications – March 2024

## Mission statement

Fastmarkets Metals and Mining is the leading global provider of pricing intelligence for the non-ferrous metal, steel, steelmaking raw materials, industrial minerals, ferrous and non-ferrous scrap markets, producing price assessments with Fastmarkets MB and Fastmarkets AMM since 1913 and 1882 respectively. The research arm of Fastmarkets Metals and Mining provides forecasts and analysis based on price assessments from Fastmarkets MB and Fastmarkets AMM. Established in 1991, we have provided regular, insightful analysis and forecasts to businesses around the world to help them make informed and strategic decisions and recommendations. Our mission is to meet the market's data requirements honestly and independently, acting with integrity and care to ensure that the trust and confidence placed in the reliability of our methodologies is maintained. We do not have a vested interest in the markets on which we report. Within the research function of Fastmarkets, we stress our ability to operate independently of the rest of the Group, and the existence of formal rules of confidentiality that exist between the pricing and news providers within the Group and the research and consulting functions.

## Introduction

Fastmarkets' reporters and analysts are required to abide by a code of conduct and clear pricing procedures during their market reporting and pricing activities. Fastmarkets is completely independent and has no vested commercial interest in any of the markets it prices. We are the world's largest dedicated price reporting teams for both metals and forest products. We have offices in London, New York, Boston, San Francisco, Eugene, Charlottesville, Atlanta, Pittsburgh, Beijing, Shanghai, Hong Kong, Singapore, Melbourne, Sao Paolo, Mumbai, Brussels, Helsinki, Dnipro and Istanbul. The aim of this document is to provide a clear overview of Fastmarkets' forecasting methodology and specifications for the prices forecast. If you have any questions, please contact Fastmarkets Executive VP Analytics Dan Klein at [dan.klein@fastmarkets.com](mailto:dan.klein@fastmarkets.com) for metals, Fastmarkets Metals and Mining research leader, Will Adams at [william.adams@fastmarkets.com](mailto:william.adams@fastmarkets.com) about our forecast products.

# Fastmarkets' forecasting methodology

### Industrial Minerals

Fastmarkets provides a dynamic, bottom-up and unbiased approach to short-term (<2-year) monthly and quarterly price forecasting.

The methodological model takes a three-way approach to account for:

1. supply-demand fundamentals
2. underlying costs & implied margins
3. market sentiment

This framework enables the analysts to determine the key but changing drivers of price movements in the past and future.

To source the information to prepare our price forecasts, forecasters conduct both extensive desk-based research as well as primary research; the latter being more heavily weighted toward our near-term (<3 month) view.

Fastmarkets' forecasting methodology includes drawing on expertise from our in-house analysts with forecasting experience of up to 20-25 years who rely heavily on the intelligence gathering and data analytics insight of our extensive editorial teams.

We supplement this valuable network with our proprietary databases, which focus on the underlying physical market movements that drive prices and the archive of spreads between price series that instruct and contextualize our understanding of margins.

These are supported by exhaustive third-party data and economic forecasting services, which help us to build the fundamental drivers of the future.

Our analysts access extensive existing relationships across the industry through face time and written interviews, and take into account the opinions provided to our price reporters and data analytics team. This cross-referencing approach helps us to value the intelligence, generate insight and help in our mission to illuminate markets.

### Modeling Fastmarkets' forecasts

Generating our forecasts is an involved process that combines macroeconomic theory, market insight,

statistical modeling and machine learning. It is this combination of expert knowledge and cutting-edge data modeling which generates our trusted forecasts. They also allow deeper insight into the fundamental workings of a market and elicit data patterns that give insight and relative weighting of key market factors that drive price direction, such as the Chinese Purchasing Manager's Index. These insights and their statistical robustness allow our expert analysts to improve forecast accuracy and reliability and to inform their commentary along with traditional macro-economic and sentiment analysis.

Our data collection and process:

- Include price benchmarks - which refer to prices used in industrial contracts - and prices that are viewed as trendsetters for a particular region or a product group
- Bespoke approach to each price forecast
- Draw on a comprehensive set of macro-economic data
- Machine learning approach to find the best model candidate and predictions with rigorous checks on model approach and output
- Models undergo periodical review
- Rigorous approval process

### Industrial minerals price forecasts

Crucial to the results of Industrial Minerals price forecasts is a detailed analysis of distinct product-specific factors:

- Fastmarkets' internal forecasts for Industrial Minerals production and consumption in individual countries or regions, considering yield losses
- Estimated inventory levels in the supply chain and the need to build working stock given the growth in the sector.
- Projected demand from Industrial Minerals users, such as EV, and other battery-powered mobility, energy storage, consumer electronics manufacturers and industrial users.
- Fastmarkets' expertise in the raw materials sector enables an examination of production 1
- costs and operating margins to determine where the price pressure points are.
- Market sentiment, including price trends of benchmark feedstock prices

## Forecast list

**MB-LI-0029 Lithium carbonate 99.5% Li<sub>2</sub>CO<sub>3</sub> min, battery grade, spot prices cif China, Japan & Korea, \$/kg**

Quality: Powder, accepted by buyer for use in battery applications and with the chemical composition: Li<sub>2</sub>CO<sub>3</sub> 99.5% min (Min. 99.2% Li<sub>2</sub>CO<sub>3</sub> accepted if it can be normalized to 99.5%); Na 0.060% max; Ca 0.016% max; Mg 0.008% max; magnetic impurities 300ppb max

Quantity: Min 5 tonnes

Location: cif main Chinese Japanese & South Korean ports (other ports normalized)

Timing: 60 days

Unit: USD/kg

Publication: Daily, 4pm London time

**MB-LI-0033 Lithium hydroxide monohydrate LiOH.H<sub>2</sub>O, 56.5% LiOH min, battery grade, spot price cif China, Japan & Korea, \$/kg**

Quantity: Min 5 tonnes

Quality: Powder, accepted by buyer for use in battery applications and with the chemical composition LiOH 56.5% min; CO<sub>2</sub> <0.35%; Ca 0.020% max; SO<sub>4</sub> 0.015% max; Cl- 0.005% max

Quantity: Min 5 tonnes

Location: cif main Chinese Japanese & South Korean ports (other ports normalized)

Timing: 60 days

Unit: USD/kg

Publication: Daily, 4pm London time

**MB-LI-0036 Lithium carbonate 99.5% Li<sub>2</sub>CO<sub>3</sub> min, battery grade, spot price range exw domestic China, yuan/ tonne**

Quality: Powder, accepted by buyer for use in battery applications and with the chemical composition: Li<sub>2</sub>CO<sub>3</sub> 99.5% min; Na 0.025% max; Ca 0.005% max; Mg 0.008% max; magnetic impurities 300ppb max

Quantity: Min 5 tonnes

Location: Ex=works China, VAT included

Timing: 30 days

Unit: CNY/tonne

Publication: Weekly. Thursday, 4pm London

**MB-LI-0040**
**Lithium hydroxide monohydrate LiOH.H<sub>2</sub>O, 56.5% LiOH min, battery grade, spot price range exw domestic China, yuan/tonne**

Quality: Powder, accepted by buyer for use in battery applications and with the chemical composition LiOH 56.5% min; CO<sub>2</sub> <0.35%; Ca 0.005% max; SO<sub>4</sub> 0.01% max; Cl- 0.002% max

Quantity: Min 5 tonnes

Location: Ex-works, China

Timing: 30 days

Unit: CNY/tonne, VAT included

Publication: Weekly. Thursday, 4pm London

**MB-GRA-0036**
**Graphite spherical 99.95% C, 15 microns, fob China, \$/tonne**

Quality: 99.95% C, 15 microns, uncoated

Quantity: Min 20 tonnes

Location: fob China

Unit: US\$ per tonne

Publication: Weekly, Thursday by 4pm London

**MB-GRA-0042**
**Graphite flake, 94%, -100 mesh, fob China, \$/tonne**

Quality: Flake 94% C, -100 Mesh

Quantity: Min 20 tonnes

Location: fob China, FCL Unit: US\$ per tonne

Publication: Weekly, Thursday by 4pm, London

**MB-GRA-0039**
**Graphite flake, 94%, -100 mesh, cif Europe, \$/tonne**

Quality: Flake 94% C, -100 Mesh

Quantity: Min 20 tonnes

Location: cif Europe, FCL Unit: US\$ per tonne

Publication: Weekly, Thursday by 4pm, London

**MB-LI-0012**

**Spodumene min 6% Li<sub>2</sub>O min,cif  
China, \$/tonne**

Quality:	A mineral concentrate accepted by buyers for conversion in lithium chemicals used in battery applications (any size will be accepted) and with the following chemical composition: Li <sub>2</sub> O 6% ( min 5.7 Li <sub>2</sub> O and max 6.1% Li <sub>2</sub> O accepted if it can be normalized to 6%); Fe <sub>2</sub> O <sub>3</sub> < 1.3% (max 1.5% Fe <sub>2</sub> O <sub>3</sub> accepted if it can be normalized to < 1.3%), H <sub>2</sub> O <10%
Quantity:	1,000 tonnes
Location:	cif China
Timing:	90 days
Unit:	US\$ per tonne
Publication:	Fortnightly, Thursday, 3-4pm London time

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