

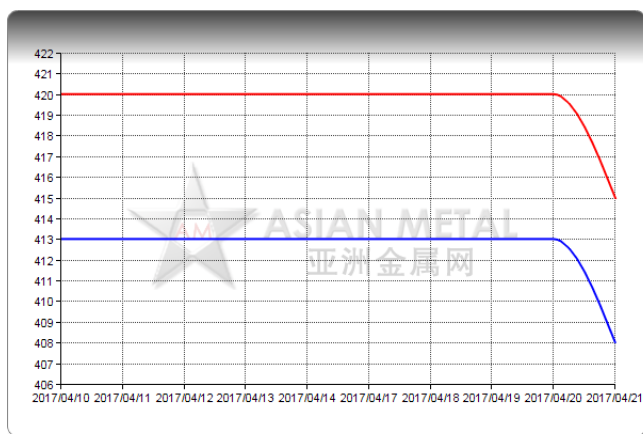
Cobalt market summary Apr 17-21

This week, as cobalt prices in the overseas markets remained unchanged, Chinese traders for cobalt metal, out of worry for further declining cobalt prices, dumped their stocks again, therefore driving cobalt metal prices in the Chinese market to go down again. Affected by this, prices for cobalt sulfate and cobalt chloride slid as their supply was sufficient, and prices for cobalt tetroxide, cobalt carbonate, and cobalt chloride remained relatively stable. Though the ternary material market saw better demand gradually, part of cobalt metal producers shifted to producing cobalt sulfate, given that cobalt metal prices were relatively low, and market players therefore became worried that supply of cobalt sulfate may grow in the near future, making insiders believe that cobalt sulfate prices were not likely to rebound in the short term.

Chinese market review

Cobalt metal prices down slightly

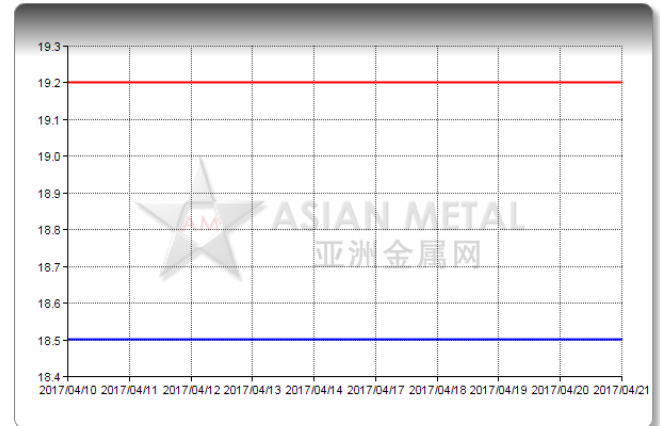
This week, cobalt metal prices in the overseas markets remained stable. In the Chinese market, downstream demand was weak; though major producers and traders still tried to keep their quotations unchanged, speculators in the futures market aimed to drive down the prices; some traders, out of worry that prices for cobalt metal might go down further in the near future, therefore began to dump their stocks at low prices, thus driving cobalt metal prices to edge down. This week, prices for Chinese cobalt metal 99.8%min dipped by RMB5/kg from the previous week to RMB408-415/kg, and a few traders quoted materials of non-standardized cobalt contents at as low as RMB320/kg. Affected by the fact that Glencore delayed in its delivery of the material, Chinese traders of cobalt metal enjoyed relatively stable supply of the material, and market players anticipated that cobalt metal prices will remain stable in the following week.



Chinese cobalt metal 99.8%min price trend (RMB/kg)

This week, purchasing prices for Chinese cobalt concentrate 6-8% still remained stable at USD18.5-19.2/lb. As the low end

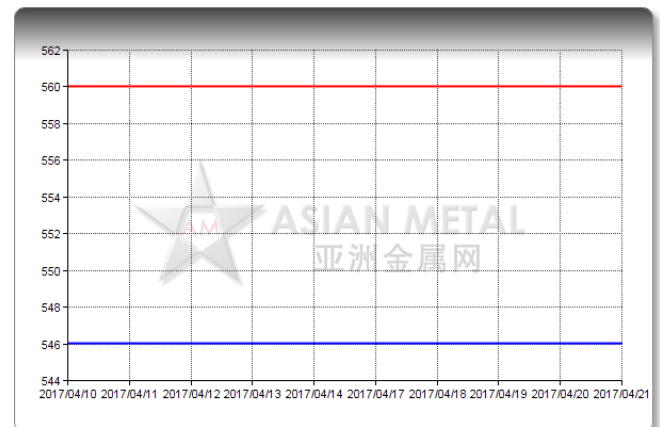
of price fluctuation range in the overseas cobalt metal markets still hovered at USD25.0/lb, and in addition, as deliver of raw materials were relatively slow, downstream consumers for cobalt concentrate kept a cautious attitude in their purchases.



Cobalt concentrate 6-8% price trend (USD/lb)

Cobalt powder prices stable

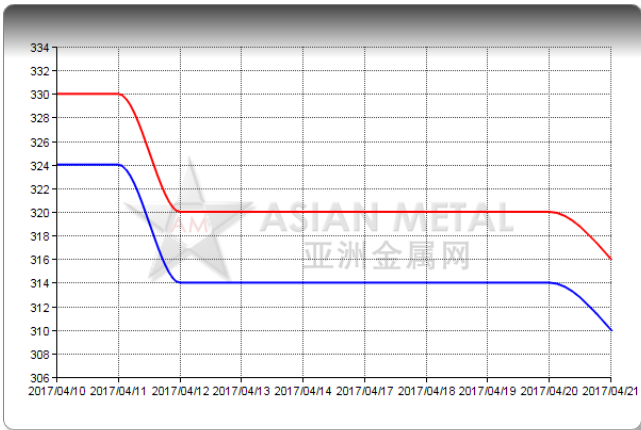
This week, prices for cobalt powder 99.5%min in the Chinese market still held at RMB546-560/kg. Though cobalt metal prices dipped again this week, production and downstream demand for Chinese cobalt powder stood still, and its prices were not affected.



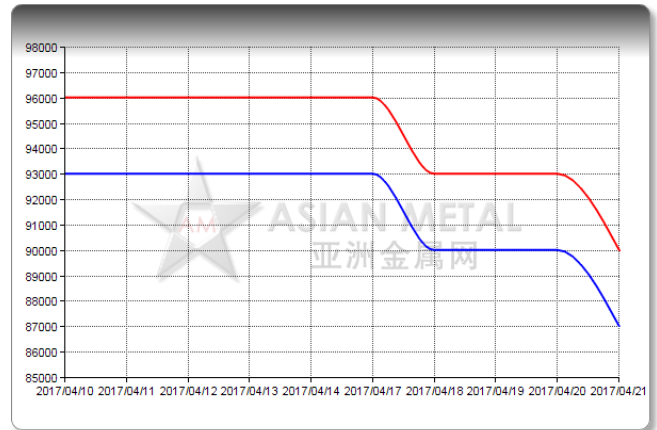
Chinese cobalt powder 99.5%min price trend (RMB/kg)

Cobalt oxide prices down

This week, affected both by dipping prices for cobalt metal as well as by weak downstream demand from ceramics and fodder industries, prices for Chinese cobalt oxide 72%min bore downward pressure, moving down further by RMB4/kg from the previous week to RMB310-316/kg, and prices for cobalt monoxide 78%min remained stable at RMB383-400/kg. Though prices for cobalt oxide had already dipped to a low level, part of the traders with urgent need for cash sold their material at as low as RMB260-270/kg VAT included.



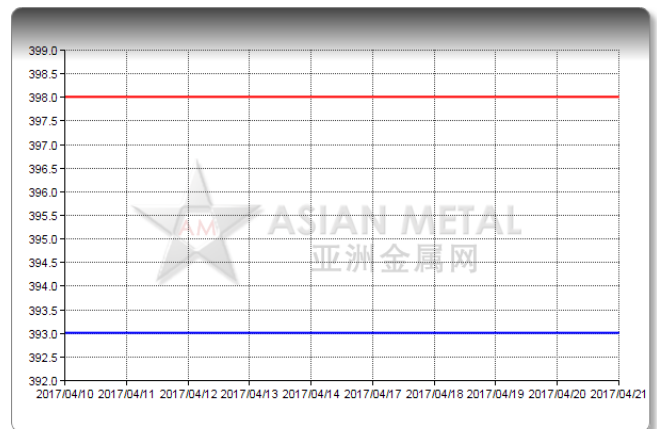
Chinese cobalt oxide 72%min price trend (RMB/kg)



Chinese cobalt sulfate 20%min price trend (RMB/t)

Cobalt tetroxide prices still stable

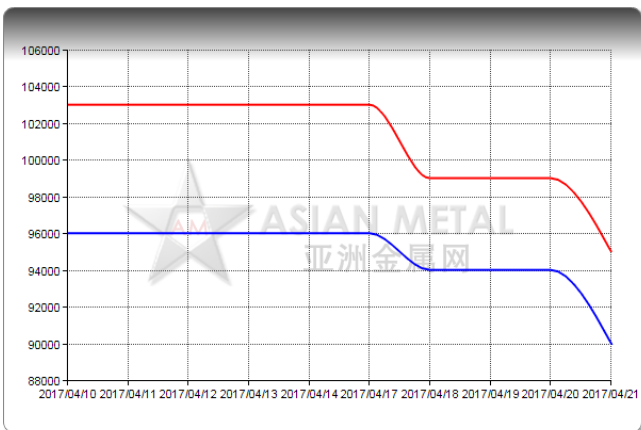
This week, owing to strong demand from downstream lithium cobalt oxide industry, prices for Chinese cobalt tetroxide 73.5%min remained stable at RMB393-398/kg.



Chinese Cobalt tetroxide 73.5%min prices trend (RMB/kg)

Cobalt sulfate prices down

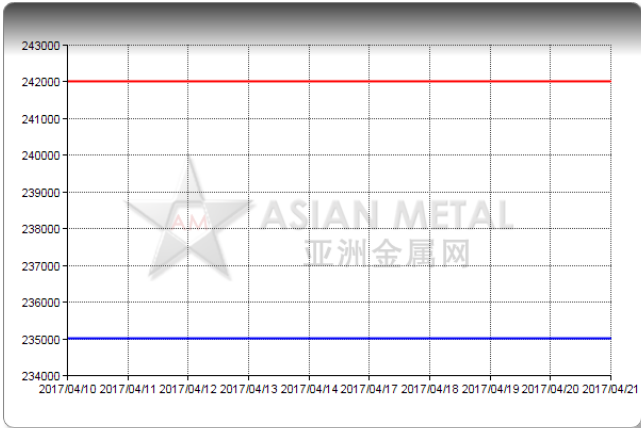
This week, as cobalt metal prices lacked upward momentum while downstream demand for ternary materials remained relatively stable, without much increases seen, prices for Chinese cobalt sulfate battery grade 20.5%min and industrial grade cobalt sulfate 20%min both dipped by RMB6,000/t from the previous week to RMB90,000-95,000/t and RMB87,000-90,000/t respectively.



Chinese cobalt sulfate 20.5%min price trend (RMB/t)

Cobalt carbonate prices stable

This week, prices for Chinese cobalt carbonate 46%min still remained unchanged at RMB235,000-242,000/t, and transactions were still few. Though cobalt metal prices lacked upward momentum, the cobalt carbonate market saw stable demand and small supply, thus enabling prices for the material to stand still.



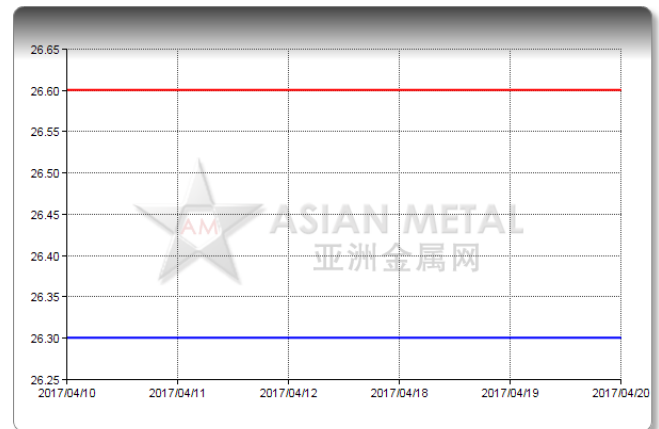
Chinese cobalt carbonate 46%min price trend (RMB/t)



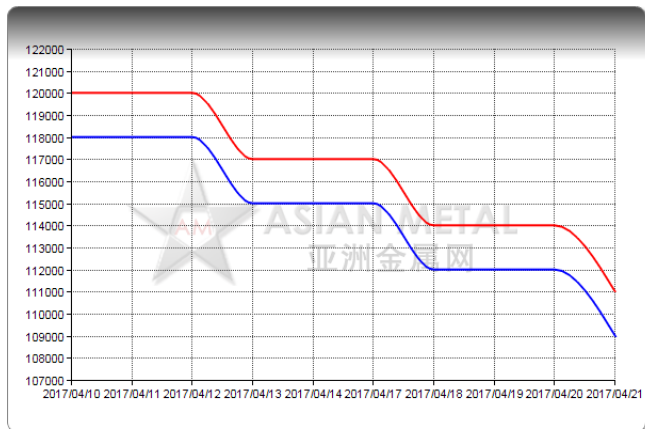
European cobalt metal 99.8%min price trend (USD/lb)

Cobalt chloride prices down

This week, prices for Chinese cobalt chloride 24%min slid further by RMB6,000/t from the previous week to RMB109,000-111,000/t. Reasons behind this price downtick was similar to those for cobalt sulfate, including stable downstream demand and traders dumping their stocks. As the international market was slow in delivering raw materials and producers calculated their production costs based upon previous prices for raw materials, prices for cobalt chloride held at a relatively low level this week.



European cobalt metal 99.3%min price trend (USD/lb)



Chinese cobalt chloride 24%min price trend (RMB/t)

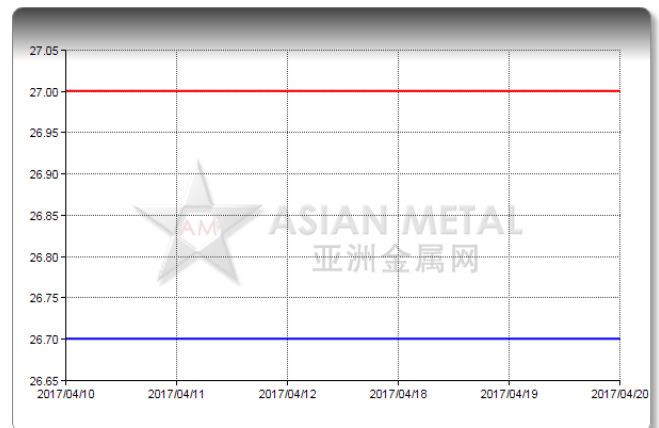
European cobalt oxide prices stable

This week, similar to the European cobalt metal market, the European cobalt oxide market witnessed few transactions as consumers had already restocked enough material before the Easter holiday, and prices remained stable, with those for cobalt oxide 72%min material still holding at EUR42.0-43.0/kg

International market review

European cobalt metal prices still stable

This week, European market players returned from the Easter holiday. As consumers had already restocks enough material before the holiday, the European market saw low downstream interest in purchasing this week. Meanwhile, despite still tight local supply of cobalt metal, traders held enough stocks and the European cobalt metal market witnessed few transactions. This week, prices for European cobalt metal 99.8%min and 99.3%min still remained unchanged at USD27.7-28.0/lb and USD26.3-26.6/lb in warehouse Rotterdam.



US cobalt metal 99.3%min price trend (USD/t)

Market outlook

Price trend for cobalt metal 99.8%min

Trend — Chance 80% Range +/-0

Price trend for cobalt powder 99.5%min

Trend — Chance 80% Range +/-0

Price trend for cobalt oxide 72%min

Trend — Chance 80% Range +/-0

Price trend for cobalt sulfate 20.5%min

Trend — Chance 80% Range +/-0

Price trend for cobalt tetroxide 73.5%min

Trend — Chance 80% Range +/-0

Price trend for cobalt carbonate 46%min

Trend — Chance 80% Range +/-0

Price trend for cobalt chloride 24%min

Trend — Chance 80% Range +/-0

This week, though speculations in the Chinese futures market drove prices up, major Chinese cobalt producers still tried to maintain their prices unchanged, and market players anticipated that cobalt metal prices in China will remain stable in the coming week. Though demand from the downstream battery industry was still in the consumptive slack season, it had already begun to pick up slightly. Meanwhile, as Glencore had not returned to normal delivery of raw materials, Chinese cobalt salt producers showed no intention to further adjust their prices. Accordingly, market players anticipated that in the coming week cobalt salt prices in China will stand still.