

## **PURIFIED TEREPHTHALIC ACID**

Purified terephthalic acid (PTA) is primarily used in polyester production with polyester fibre consuming a large proportion of global output. However, polyethylene terephthalate (PET) resin production for packaging and film applications is growing very rapidly due to its success in penetrating the soft drinks and water bottles market.

A smaller proportion of PTA is utilised in the production of polyester film which had, until recently, been the material of choice for the audio recording industry. The remaining PTA is used in making cyclohexanedimethanol, terephthaloyl chloride, copolyester-ether elastomers, plasticisers and liquid crystal polymers.

Worldwide around 65% of PTA goes into polyester fibre, 27% to PET bottle resin and the remaining 8% to film and other plastic end uses. However, the breakdown for the US market shows the growing dominance of PET resin where solid state resins account for 50%; polyester fibres, 43%; polyester film, 3%; and other, 4%.

PTA dust can be explosive, and it reacts strongly with oxidants. The substance can irritate the eyes and skin.

ICIS pricing quotes PTA in **Europe, Asia-Pacific (including the Chinese domestic market)** and the **USA**.

**NOTE:** US PTA covered in report named PET & INTERMEDIATES (USA), and detailed in Polyethylene Terephthalic (PET) methodology entry

### **Frequency:**

- Terephthalic Acid Daily (Asia Pacific) – formerly under Fibre Intermediates Daily (Asia) – published on Mondays to Fridays
- Terephthalic Acid (Europe), Terephthalic Acid (Asia Pacific), and PET & Intermediates (USA), published weekly on Friday.

### **Terephthalic Acid (EUROPE)**

#### **Weekly Price Assessments:**

##### *Terephthalic Acid Monthly Contract Prices*

- FD NWE (EUR/MT & conversion to USD/MT)

### **Terephthalic Acid (ASIA)**

#### **Daily Price Assessments:**

##### *Terephthalic Acid Spot Prices*



- CFR CHINA MAIN PORT (USD/MT & conversion to US CTS/LB)
- CFR CHINA MAIN PORT exempted from ADD (USD/MT & conversion to US CTS/LB)
- CFR CHINA MAIN PORT subject to ADD up to 2.6% (USD/MT & conversion to US CTS/LB)
- EX-WAREHOUSE CHINA (CNY/MT & conversion to US CTS/LB)

### **Weekly Price Assessments:**

#### *Terephthalic Acid Monthly Contract Prices*

- DEL TAIWAN (USD/MT & conversion to US CTS/LB)
- CFR CHINA (USD/MT & conversion to US CTS/LB)
- DEL CHINA (CNY/MT & conversion to US CTS/LB)

#### *Terephthalic Acid Spot Prices*

- CFR CHINA MAIN PORT (USD/MT & conversion to US CTS/LB)
- CFR CHINA MAIN PORT exempted from ADD (USD/MT & conversion to US CTS/LB)
- CFR CHINA MAIN PORT subject to ADD up to 2.6% (USD/MT & conversion to US CTS/LB)
- EX-WAREHOUSE CHINA (CNY/MT & conversion to US CTS/LB)
- CFR INDIA MAIN PORT (USD/MT & conversion to US CTS/LB)
- FOB NORTHEAST ASIA (USD/MT & conversion to US CTS/LB)

### **General Information:**

**Assessment window:** Weekly price assessments are based on information supplied by market participants through the week up to close of business on Fridays at 1700 hours in London, Singapore and Beijing.

Daily assessments are based on information gathered throughout the day to close of business at 1700 hours in Singapore and Beijing.

**Specification:** ICIS pricing quotes the most widely-accepted brands of PTA which are of at least 95% purity. Qualified terephthalic acid (QTA), modified terephthalic acid (MTA) and Eastman proprietary terephthalic acid (EPTA) are not quoted.

**Timing:** Generally cargoes loading (FOB) or delivered (CFR) four-six weeks forward from the date of publication, except China domestic quotes which are for immediate delivery of up to three days.

**Terms:** Generally 30-60 days after bill of lading date or L/C 90 days, except in China where contract business is with at least three months' credit and spot is cash on delivery or cashier's order.



**Standard cargo size:** In Asia, including China, at least 1,000 tonnes unless otherwise stated. In Europe, 500-2,000 tonnes. In the US, 200-1,000 tonnes.

**Assessment basis:** In Asia, ICIS pricing has since 1 January 2012 changed the methodology for the CFR China Main Port weekly assessments to the simple average of daily assessments for a full work week, instead of the previous weighted-to-Friday approach. Meanwhile, the PTA daily price assessments in the Terephthalic Acid Daily (Asia) report have been changed to the simple average of deals captured by the close of business at 1700 hours in Singapore, instead of the previous full-market approach.

The mid-point of the published PTA price range in the PTA Daily (Asia) report is the simple average of deals captured throughout the day up to close of business at 1700 hours in Singapore. Prices for bonded warehouse cargoes are normalised to those for shipment cargoes according to the market before being factored into the assessments. The recorded deal prices are net prices after deducting commission fees. In exceptional cases, ICIS will use editorial discretion to exclude certain “outlier” deals found to be non-repeatable or not representative of market fundamentals. During illiquid trading days without confirmed deals, ICIS will use the mid-point of the best bid-offer levels to form the range. If no deals are done, when prices suddenly change to a different level during the day, notional adjustments will be made to accurately reflect the levels at which business would probably take place by close of business that week. Factors affecting price movements, including the supply and demand situation, plant operating rates, feedstock and derivative markets, cargo movements, and general sentiment, will also be taken into account.

The range of the published daily PTA prices is set according to the price volatility during the day. The alpha that ICIS use to minus from or add to the mid-point is the smaller spread between the mid-point and deal prices at two ends. During weeks when prices are highly volatile, ICIS will cap the alpha at \$30/tonne, but will discuss the volatility in the text.

Chinese domestic cargoes quoted in yuan (CNY) terms are assessed by taking into account deals, bids, offers and price ideas heard throughout the week.

In the Asian PTA daily and weekly reports, in addition to the original CFR China Main Port quote, two further CFR China Main Port quotes were added in 2010: CFR China Main Port exempted from ADD and CFR China Main Port subjected to ADD up to 2.6%.



The former reflects the price assessment of imported cargoes exempted from ADD, including imports from Taiwan and Japan; and the latter reflects price assessment of imports of Korean origin, which are subjected to ADD ranging from 2-2.6%. ICIS has since 1 January 2012 narrowed the ADD range to 2-2.6% from the previous 2-3.7% because of large price differences among cargoes subject to different ADDs.

In addition, the three CFR China Main Port quotes do not reflect cargoes of Association of Southeast Asian Nations (ASEAN) origin because of limited trade liquidity and different tariffs compared to northeast Asian cargoes. ASEAN countries, including Thailand, Malaysia, Indonesia and Pakistan, are free of import tariffs to China.

The FOB NE Asia spot quote, newly introduced in October 2013, reflects export spot cargoes from northeast Asian countries including China, South Korea and Taiwan. The introduction of the quote is a result of trade flow migrates within Asian region following large capacity expansions in China.

The FOB NE Asia and CFR India weekly assessments adopt a weighted-to-Friday approach as the pricing methodology, and based on the deals concluded, bids and offers, notional discussions heard by the close of the business on Friday.

In Europe and US, the published ranges represent a combination of the following price indications: the deals concluded, bids and offers, buy and sell indications and notional discussions heard by the close of business on Friday. Notional adjustments will be made to accurately reflect the levels at which business would probably take place by the close of business that week.

In the absence of price confirmation in Europe, ICIS uses a mathematically derived indicator using 0.67 of the upstream monthly FD NWE paraxylene (PX) contract move to calculate the monthly PTA price move.

The reports offer market commentary that includes details of traced transactions, news on the supply/demand balance, export/import information, contract price negotiations and general sentiment for price direction. Where applicable there is product information, comments on up and downstream market developments and general market intelligence.

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