

## **Polyols Methodology**

Polyols are a primary polyurethanes component. A polyol and an isocyanate react to form polyurethane. There are both polyether and polyester polyols. Polyols are used in a wide range of rigid and flexible polyurethane applications, including energy-saving refrigeration insulation, industrial sealants, cushion foam, and construction and building materials.

ICIS pricing quotes polyols in **Europe, Asia-Pacific, Middle East** and the **USA**.

### **Frequency:**

Published weekly on Wednesdays, apart from the Middle East report which is on Thursday.

### **Polyether Polyols (EUROPE)**

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

*Flexible Polyols Monthly Contract Prices*

- SLABSTOCK CONVENTIONAL FD NWE (EUR/MT & conversion to US CTS/LB)

*Base Rigid Polyols Monthly Contract Prices*

- SUCROSE FD NWE (EUR/MT & conversion to US CTS/LB)

### **Polyether Polyols (ASIA-PACIFIC)**

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

*Flexible Foam Spot Prices*

- SLABSTOCK (BULK) DEL CHINA (USD/MT & conversion to US CTS/LB)
- SLABSTOCK CFR S.E.ASIA (USD/MT & conversion to US CTS/LB)
- SLABSTOCK CFR INDIA (USD/MT & conversion to US CTS/LB)
- HIGH RESILIENCE CFR S.E.ASIA (USD/MT & conversion to US CTS/LB)

*Rigid Foam Spot Prices*

- SLABSTOCK CFR S.E.ASIA (USD/MT & conversion to US CTS/LB)

### **Polyols (USA)**

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

*Flexible Foam Domestic Prices*

- SLAB BULK/DELIVERED (US CTS/LB & conversion to USD/MT)
- HIGH RESILIENCE BULK/DELIVERED (US CTS/LB & conversion to USD/MT)

*Rigid Foam Domestic Prices*

- POLYESTER BULK/DELIVERED (US CTS/LB & conversion to USD/MT)
- POLYETHER BULK/DELIVERED (US CTS/LB & conversion to USD/MT)

## **Polyols (MIDDLE EAST)**

### **Weekly Price Assessments:**

#### *Flexible Slabstocks - Conventional Polyols Weekly Spot Prices*

- CFR GCC (USD/MT & conversion to US CTS/LB)
- CFR East Med (USD/MT & conversion to US CTS/LB)

#### *Base Rigid Polyols*

- CFR GCC (USD/MT & conversion to US CTS/LB)
- CFR East Med (USD/MT & conversion to US CTS/LB)

### **General Information:**

**Assessment window:** Price assessments are based on information supplied by market participants through the week up to close of business on Wednesdays at 1700hr in London and 1800hr in Singapore and Houston.

**Specification:** The molecular weight of the conventional slabstock polyether polyols reported is 3,000-3,500, 500-1,000 for rigid polyether polyols, and 200-1,000 for rigid polyester polyols.

The Middle East report assesses the prices of conventional rigid foams with hydroxyl value (OH) values spanning 400-460 mgKOH/g.

The Asia Pacific report assesses the prices of high resilience polyols with molecular weight of 5,000 and conventional rigid foams with OH values of 400-460 mgKOH/g and viscosity of 3,500-5,000 mPa.s/°c.

**Timing:** Cargoes loading or delivered four-six weeks forward from the date of publication. For the Asia-Pacific and Middle East reports cargoes delivered up to six weeks forward.

**Terms:** Typically 30-60 days after bill of lading date. China prices assume that the buyer holds a letter of credit with credit terms between 30-90 days, while terms elsewhere in Asia are 90-180 days.

CFR Middle East and Africa assessments assume that the buyer holds a letter of credit with credit terms between 60-120 days for cargoes of Asian origin. For cargoes of European and South Korean, DA (documents against acceptance) 90 days is accepted or 60-90 days after bill of lading date or open terms with 90-120 days credits.

**Standard cargo size:** A typical full bulk truck load size into NWE is 20-25 tonnes and the slabstock flexible polyol range takes into account average to small volume consumers, who typically purchase a few thousand tonnes per year to around 10,000 tonnes year. For rigid polyols, the range reflects average to small volume players,

who typically purchase 300-500 tonnes/year up to a few thousand tonnes/year. US assessments are based on typical railcar and tank truck volumes of 180,000-190,000 lbs in the case of railcars, and approximately 46,000 lbs for tank trucks. In Asia typical bulk cargo sizes covered range between 100-500 tonnes. In the Middle East, prices are for drummed material at 200-210 kilogrammes/drum. One Full Container Load (FCL) contains 80 drums.

**Assessment basis:** European polyether polyols price assessments reflect full bulk, pre-discounted monthly values only. The European price assessments reflect full bulk, pre-discounted values only. The contract prices in the ICIS pricing ranges represent the final settled price for that month. Price changes are calculated against the previous monthly contract prices quoted. All prices in the range are pre-discounts. In instances where a discrepancy between the delta movements and absolute numbers from a cross section of market players arises, the actual numbers are given greater importance, provided they are consistent with the assessment basis and other methodological parameters and there is sufficient market confirmation to substantiate this.

The price range includes monthly transactions reported as physical deals and concluded between buyers and sellers during the previous week. Certain prices may be excluded from the range if they have been negotiated in unusual circumstances or if special conditions are thought to apply. In the absence of business, the price spread can be adjusted based on the majority market sentiment. When applicable, business concluded in the Mediterranean, Scandinavia, and central Europe is quoted in the body of the European report text.

For the Asia-Pacific report, information is gathered throughout the week from market participants. The published prices do not include discounts. Certain prices may be excluded from the range if they have been negotiated in unusual circumstances, or if special conditions are thought to apply.

Because of limited confirmation on actual price levels, the price range for flexible slabstock (Bulk) DEL China is assessed based on a combination of deals, bids and offers heard, majority market sentiment, and netback of domestic prices in south China. The DEL China assessment includes delivery cost and excludes VAT/duty. Chinese domestic prices are also mentioned in the text of the Asia report.

The price ranges for flexible slabstock CFR SE Asia and CFR India are assessed based on a combination of deals, bids and offers heard on bulk and drummed basis, as well as majority market sentiment.

The price range for high resilience CFR SE Asia is assessed based on a combination of deals, bids and offers heard on drummed basis, as well as majority market sentiment.

For the US report, information is gathered throughout the week from some suppliers, consumers, distributors and other market players. The published prices do not include discounts for volume or customer/contract status. Business concluded in Latin America is included in the body of the report.

Because of limited confirmation on actual price levels, the assessments reflect the editor's best judgment using traced transactions, news on the supply/demand balance, export/import information, contract price negotiations and general sentiment for price direction, in addition to arbitrages to and from other regions and retail sales.

The Middle East assessments include information from markets in the Gulf Cooperation Council (GCC) – Saudi Arabia, United Arab Emirates, Iran, Kuwait, Bahrain, Oman and Qatar – and the East Mediterranean, which includes Jordan, Syria, Lebanon and Israel.

Transactions for polymeric polyols of various formulations may also be included in the text. They are mainly used as reactants to reinforce the compression strength of the resultant foam product.

Business concluded in Africa is included in the text of the report. Western Africa covers main ports in Mauritania, Senegal, The Gambia, Guinea-Bissau, Guinea, Sierra Leone, Liberia, Côte d'Ivoire, Ghana, Togo, Benin and Nigeria. Eastern Africa covers main ports in Eritrea, Djibouti, Somalia, Kenya and Tanzania. Northern Africa covers main ports in Morocco, Algeria, Tunisia, Libya, Egypt and Sudan. Southern Africa covers main ports in Namibia, Mozambique and South Africa.

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