

## **Titan Group and Univation Technologies Sign Metallocene PE License**

**Kuala Lumpur, MALAYSIA** (15 April 2002) Titan Polyethylene (Malaysia) Sdn Bhd and Univation Technologies, headquartered in Houston, Texas signed a Licensing Agreement for manufacture of Metallocene Polyethylene (mPE). The parties also signed a Metallocene Catalyst Supply Agreement and a Polyethylene Capacity Expansion License Agreement. The signing took place at Titan's office in Kuala Lumpur. Under the terms of the Agreement, Titan will be able to produce polyethylene using Univation's metallocene catalysts.

Metallocene catalysts are rapidly emerging as a primary driving force for change in the polyolefins business and have been used in commercial operations for a number of years. Metallocene catalysts permit production of polyolefins with a controllable molecular weight distribution, which is tailored to achieve a specific structure and set of properties. Metallocene PEs are known for their enhanced performance and exceptional toughness. In addition, Univation offers mPEs with improved processability.

Titan will be the first company to produce mPE in Southeast Asia and will work toward filling demand currently satisfied by imports from Japan and the USA. Metallocene Polyethylene is expected to be available by September 2002.

Mr. James Chao, Managing Director of the Titan Group, said, "Metallocene capabilities will further widen the wide range of polyolefins that Titan can offer to its customers."

Univation's Commercial Vice President, Dr. Randall Wu, said, "This agreement continues the successful penetration of Univation's metallocene technology. In the Asia Pacific marketplace Titan will now be able to use Univation's metallocene technology to produce and market products offering significantly higher value to their customers."

The Titan Group, Malaysia's first integrated petrochemicals and polymers producer based in the state of Johor, is a 12-year joint venture between the Chao Group International of USA and Permodalan Nasional Berhad (PNB) through its wholly owned subsidiary, PNB Equity Resources Corporation (PERC). The Titan Group has 2 Naphtha Crackers, 5 Polymer Plants, a BTX Unit, 2 Co-Generation Plants and associated facilities covering an area of over 300 acres. Total investments of about RM6b make it Johor's largest investor. It employs over 1,300 workers and with ethylene and propylene capacity of 630,000/330,000 MTA respectively and polymer's capacity of 900,000 MTA is the largest single site polyolefins producers in South East Asia.

*Univation Technologies is a joint venture between ExxonMobil Chemical Company and The Dow Chemical Company. Univation, whose patent portfolio in the metallocene catalyst field is among the most extensive in the industry, is committed to delivering value to the PE industry. In addition to metallocene catalysts, it also sells a comprehensive line of conventional Ziegler-Natta and chromium PE catalysts.*

Visit Univation's website for more information at [www.univation.com](http://www.univation.com).

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