

In demand PE technology

INEOS Technologies is one of the world's largest chemical companies. It provides a variety of products and services to the petrochemical industry, and notably is a leading licensor of Polyethylene (PE) and Polypropylene (PP) technology with its Innovene processes. These include the Innovene S process with its proprietary vertical slurry loop reactors in a two reactor system providing easy and efficient transitions between bimodal and monomodal grades of high-density polyethylene (HDPE). Randall Wu, INEOS Technologies Vice President, Marketing & Sales, explains why Innovene S is used for a full range of new HDPE projects, on a global scale.

Innovene S technology was first developed by Solvay in the 1960s, and offered for license by INEOS from 2005. The range of HDPE products that can be produced with Innovene S is unrivalled, says Dr. Wu, with applications ranging from film, blow moulded bottles, and injection moulded parts, to crates and pails through to caps and closures. "Other processes are generally confined to a fraction of the HDPE market due to their process/catalyst limitations. Innovene S is a dual slurry reactor process, perfectly adapted to bimodal production. As such, Innovene S can use a wide range of different catalysts making it the most versatile process for

HDPE products." As well as Innovene S, INEOS offers for license Innovene G, which uses a gas-phase, fluidised-bed reactor for the production of LLDPE and HDPE. Both of these PE technologies have been in high demand in recent years. In addition INEOS Technologies offers Innovene PP, a gas phase process for the production of a full range of polypropylene products (homopolymers, random copolymers and impact copolymers).

Polyethylene technology is much in demand, considering the number and scale of the announced projects and plans for new PE units. The drive to use ethane feedstocks from shale gas has

prompted a rush to build ethane crackers and associated downstream polyethylene (PE) units. INEOS plays an active part in this development. The company announced in early November that PTTGC America LLC, an affiliate of PTT, Thailand's largest petrochemical and refining company, will use Innovene S at its new cracker complex to be located near Dilles Bottom, Ohio, USA. INEOS also co-invested in a JV with SASOL on Project Gemini in the US, to build a 470,000 tonne/year HDPE unit at the INEOS Battleground Manufacturing Complex in La Porte, Texas. But these are just two of a whole range of new projects that will use INEOS Technologies' Innovene processes, demonstrating the company's continued commitment to the HDPE market and to growing end-use applications that benefit from bimodal technology.

According to Dr. Wu, INEOS aims to continue to expand the licensing of the Innovene processes on a global scale. "Overall, INEOS is looking to grow with sustainable technologies and feedstocks for our operations. We have started an initiative to bring US shale gas to our European operations with a long term view of having shale gas economics established in the ground in Europe."



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