

BASELL TECHNOLOGY

Basell is a one of global licensor offering process technologies for production of all PP and PE product families. Basell technologies can meet both the diverse needs of performance plastics manufacturers and those of commodity-oriented polyolefin producers. Basell's licensing portfolio of processes and services include two technologies for polypropylene manufacturing, and four technologies for polyethylene manufacturing.

Polypropylene:

- **Spheripol process**

The Spheripol process offers licensees a simple and economical method of producing a wide range of PP products of the highest quality. Spheripol technology includes features that reduce both resource consumption and emissions from the process. These include use of high yield, highly stereospecific catalysts, the absence of solvents in the process to suspend the polymer (the suspension agent is the monomer itself), recovery and recycling of unreacted monomers, and the absence of undesired by-products from the reaction. By a modular installation, Spheripol process technology is easily adapted to meet changing market requirements when new business opportunities arise for licensees.

- **Spherizone process**

In Spherizone, two different polymerization zones are created in one single gas phase reactor. Each polymerization zone has its own polymerization conditions, producing its own specific polymer product. The spectrum of possible products is nearly without end. Co-monomer contents can be varied in combination with hydrogen changes. The Spherizone's technology helps to reduce both resource consumption and emissions. These include use of high yield, highly stereospecific catalysts, recovery and recycle of unreacted monomers, the absence of undesired by-products from the reaction and the low energy consumption.

Polyethylene:

- **Hostalen process**

This is a leading low-pressure slurry process technology for the production of bimodal HDPE.

- **Spherilene process**

The Spherilene process is a true swing technology for the production of linear ethylene polymers from broad molecular weight distribution HDPE to VLDPE using a single family of Ziegler-Natta catalysts. The dual independent reactor set-up allows unique gas-phase cascade configuration for bimodal operation in terms of molecular weight, density and polymer composition.

- **Lupotech G process**

The Lupotech G process is a comprehensive technology for the production of linear ethylene polymers with inherently broad molecular weight distribution. Based on Chromium catalyst chemistry, these products include HDPE polymers for film and blow molding - including the large blow molding, L-ring type containers - and MDPE polymers for film, pipe and pipe coating applications. The elegant and simple one reactor process setup allows very cost effective production of these products.

- **Lupotech T process**

The Lupotech T process is the high-pressure tubular reactor technology developed for the whole range of LDPE products (Lupolen), including HEVA copolymers. Special features of Lupolen LDPE are the large scope, easy processing, good resistance to environmental stress cracking, well-balanced property combination of good mechanics, opticals and draw-down and an overall excellent product consistency.