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Hostalen PE Process

At the heart of the new *Hostalen* Advanced Cascade Process (*Hostalen* ACP) technology are three reactors in cascade, enabling the production of multimodal HDPE resins. Extension of the well-proven, highly regarded *Hostalen* bimodal process technology to multimodal capability marks another significant milestone in LyondellBasell's rich history of innovation.

Hostalen ACP process technology manufactures high-performance, multimodal HDPE resins with an industry-leading stiffness/toughness balance, impact resistance, high stress cracking resistance and processing advantages used in film, blow molding and pipe applications.

The success of the technology is reflected in the one million tons of *Hostalen* ACP capacity in production annually at the company's wholly-owned and joint venture locations:

- Basell Polyolefine GmbH, Wesseling, Germany – 320 KT per year, start-up 2004
- Basell Orlen Polyolefins SP. z o.o., Plock, Poland – 320 KT per year, start-up 2005
- Saudi Ethylene & Polyethylene Company, Al-Jubail Industrial City, Saudi Arabia – 400 KT per year, start-up March 2009
- Basell Polyolefine GmbH, Münchsmünster, Germany – 250 KT per year, start-up 2010

Technology highlights

- Slurry cascade process with three stirred polymerization reactors in series
- Customized molecular weight distribution design and composition of the final products
- Polymerization conditions can be adjusted independently for each reactor

Design and reliability

- Developed from the leading *Hostalen* bimodal process technology with demonstrated high reliability
- Single catalyst family of Ziegler catalysts, enabling a simpler operation
- Commercially proven at plant capacities of up to 400 KT per year
- *Hostalen* bimodal process can be expanded to *Hostalen* ACP technology

Product capabilities and flexibility

- Produces multimodal grades used in all HDPE applications required by customers globally
- Addresses customer needs for expanded processing and product property needs
- Stiffness / toughness performance and stress resistance / stiffness balance pushed to new limits
- In-reactor process stability and superior homogenization results in batch-to-batch consistency
- Manufactures HDPE used in high-performance applications

Typical customer applications

- High-stiffness, high-tenacity film, including packaging liners and bags
- Large and small blow molding, including packaged consumer goods
- Pipe, including pressure pipe for the transport of gas, drinking water and sewage
- Tapes and monofilament, including applications in the textile industry
- Injection molding, including caps and closures

For further information, please [contact us](#).

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Related Information

Hostalen brochure
 LyondellBasell Grants Its Largest *Hostalen* ACP Process License to Chinese Company
 LyondellBasell Starts up New *Hostalen* ACP HDPE Plant in Münchsmünster, Germany
 LyondellBasell Achieves Production Milestone of Two Million Tonnes of Multimodal HDPE in Europe

Highlights

Low-pressure slurry process technology for the production of high-performance multimodal HDPE grades

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