

Albemarle introduces Advantage™ Ziegler polyethylene catalyst technology

As a global supplier of metallocene and Ziegler–Natta catalysts, Albemarle is constantly seeking ways to improve customer efficiencies. The Advantage catalysts are a comprehensive series of highly optimized Ziegler catalysts. These catalysts offer a broad spectrum of polyethylene (PE) grades for targeted end use in solution-phase and slurry platforms.

Advantage catalyst technology has been optimized through years of research and development. In the solution process, these replace vanadium systems to give enhanced resin properties and cost-efficient use. They have been commercially proven and are in current use in solution-phase and slurry PE production units.

Advantage HD catalysts produce high-density PE with excellent flowability, superior environmental stress cracking resistance (ESCR) and a narrow molecular weight distribution (MWD). Advantage LL catalysts produce linear low-density PE with a superior balance of film properties for premium performance: excellent optical properties, a wide sealing temperature window, outstanding tear, impact, and puncture resistance, a low gel content and a high Vicat softening point.

CATALYST TYPE

Highly optimized Ziegler PE system

PROCESS PLATFORMS

Solution phase: Advantage LL77

Slurry: Advantage HD26 and Advantage HD46

PRODUCT ATTRIBUTES

Advantage HD26 and Advantage HD46

- Excellent flowability for achieving high production rates
- Balance of process ability and mechanical
- Superior ESCR and narrow MWD

Advantage LL77

- Superior optical properties (haze and gloss)
- Outstanding tear, impact, and puncture resistance
- Low gel content and high Vicat softening temperature

CATALYST ACTIVITY

High activity provides an excellent return on investment

MORPHOLOGY

Consistent quality and control of catalyst particle size and particle size distribution for optimized throughput





Catalyst manufacturing

Advantage catalysts are produced at Albemarle's facility in Baton Rouge, Louisiana. Transportation of commercial quantities to any worldwide location is convenient and readily available.

Technical support

With wide experience of developing, manufacturing and applying polyolefin catalysts, Albemarle is able to guarantee customers full technical support.

The following services are available:

- representative resin samples
- catalyst feed system modification design
- technical support during start-up and troubleshooting
- process optimization assistance.

Quality

Albemarle produces all its catalysts under strict quality surveillance, including statistical process control. Albemarle's total quality program includes the route from raw materials through production, logistics, administration and technical services. All are certified according to the relevant ISO standards.

For more information on this or other Albemarle products and technologies, please contact your Albemarle representative.

“ **ALBEMARLE IS CONSTANTLY SEEKING WAYS TO IMPROVE CUSTOMER EFFICIENCIES** ”



polimeri europa

Advantage polyethylene catalyst is based on technology from Polimeri Europa.

➤ For more information on this or other Albemarle products and technologies, please contact your Albemarle representative.

AMERICAS

451 Florida Street
Baton Rouge, LA 70801
USA

Tel: +1 225 388 8011
Fax: +1 225 388 7686
Email: albsales@albemarle.com

EUROPE, MIDDLE EAST, INDIA AND AFRICA

Parc Scientifique de LLN
Rue du Bosquet 9
B-1348 Louvain La Neuve
Belgium

Tel: +32 10 48 1711
Fax: +32 10 48 1717
Email: emasales@albemarle.com

ASIA PACIFIC

Room 2208, Shui On Plaza
No. 333 Huai Hai Zhong Rd
Shanghai 200021
China

Tel: +86 21 6103 8666
Email: apsales@albemarle.com

JAPAN

16F, Fukoku Seimei Building
Uchisaiwai-cho, 2-2-2
Chiyoda-ku
Tokyo 100-0011
Japan

Tel: +81 3 5251 0793
Email: catmaster@albemarle.com

www.albemarle.com

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any information contained herein, including information about any health or safety hazards, only as a guide, and should take those precautions that are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein described materials or processes in violation of existing or future patents.