MARLEX®
METALLOCENE POLYETHYLENE

OPTICS | IMPACT & PUNCTURE RESISTANCE | SEALING PERFORMANCE
Chevron Phillips Chemical, A Legacy in Polyethylene Leadership

Chevron Phillips Chemical was founded on a rich history of invention and progress. Today, we continue building on that legacy. We have maintained a leadership position in the polyethylene industry by building on advancements made by our parent companies, Chevron Corporation and Phillips 66. Knowledge of multiple manufacturing processes and a commitment to research have contributed to our success.

Our metallocene LLDPE resins are produced using the MarTECH® loop slurry technology, which Phillips Petroleum Company introduced in 1961. It is the world’s most licensed petrochemical process for the production of high-density polyethylene. We expanded the usage of this proven process to mLLDPE through the application of a new catalyst system. This is a testament to our inventive culture, built on the solid foundation of our two parent companies.

Historically we have advanced with a pioneering spirit and we will continue to grow the company for years to come as shown by our major expansions throughout the world, most recently in the Texas Gulf Coast region. This growth demonstrates our leadership and commitment to customers domestically and globally.
THE MARLEX® METALLOCENE POLYETHYLENE DIFFERENCE

HIGH GLOSS, TRANSPARENCY, IMPACT AND PUNCTURE RESISTANCE
Our success is driven by our people and their commitment to science. Chevron Phillips Chemical Company LLC’s Marlex® metallocene polyethylene products demonstrate outstanding optical properties compared to competitive metallocene linear low density polyethylene (mLLDPE) resins. In addition to their distinguished optical properties, Marlex® mLLDPE resins authenticate the impact and puncture strength and enhanced sealing characteristics of mLLDPE type resins. This unique combination of properties translates into superior performance in monoextruded, blended or coextruded film and applications for both processors and end-users.

APPLICATION FOCUS
Our research and development and technical support teams have the proven expertise and world-class technology to help you meet today’s toughest challenges, whatever your application need. Chevron Phillips Chemical’s technical experts develop cost-effective solutions for our customers by applying their knowledge of the resin and process that is unique to your application. It’s no wonder Chevron Phillips Chemical consistently ranks at the top of the MASTIO Customer Value and Loyalty Study for customer preference and supplier performance.

INNOVATIVE CATALYST DEVELOPMENT, RESEARCH AND TESTING
As one of the world’s top producers of polyethylene, Chevron Phillips Chemical focuses not only on today’s growing demands, but also on the future needs of our customers and application areas they service. Our dedication begins with the application of basic polymer and catalyst research and includes modeling in both bench-scale and in our pilot plants located in Bartlesville, Oklahoma. We conduct a wide range of testing and benefit from state-of-the art extrusion equipment in our tech service facility and production facilities across the world. Chevron Phillips Chemical is devoted to developing future generations of resins.

WORLD-CLASS FACILITIES AND QUALITY
At Chevron Phillips Chemical, we place equal importance on generating a safe and sustainable environment for our employees, customers, communities and owners, while delivering quality products and services to our customers. Whether it’s creating resins that consume less energy during processing or developing flexible packaging applications that reduce environmental impact, Marlex® polyethylene is laying the foundation for sustainable growth. By using proven production systems, such as our MarTECH® loop slurry, which has been the benchmark for production of high density polyethylene and our proprietary catalyst systems, Chevron Phillips Chemical has demonstrated a successful track record in the polyethylene industry. Preparing for the future, Chevron Phillips Chemical expansions are designed to keep pace with the growing needs of our customers around the globe.
FILM PERFORMANCE COMPARISON:

CHEVRON PHILLIPS CHEMICAL COMPANY
MARLEX® mLLDPE VS. STANDARD HEXENE LINEAR LOW
AT SIMILAR DENSITY AND MELT INDEX

- Haze (%)
- Gloss, 45°
- Dart Drop (g/mil)
- Puncture (in*lbf)
- Elmendorf Tear, TD (g/mil)
- Elmendorf Tear, MD (g/mil)
- Ultimate Tensile, TD (psi)
- Ultimate Tensile, MD (psi)
- Heat Seal, SIT (°C)

CHEVRON PHILLIPS CHEMICAL COMPANY MARLEX®
mLLDPE VS. COMPETITIVE METALLOCENE
AT SIMILAR DENSITY AND MELT INDEX

- Haze (%)
- Gloss, 45°
- Dart Drop (g/mil)
- Puncture (in*lbf)
- Elmendorf Tear, TD (g/mil)
- Elmendorf Tear, MD (g/mil)
- Ultimate Tensile, TD (psi)
- Ultimate Tensile, MD (psi)
- Heat Seal, SIT (°C)