

Milliken® UltraGuard™ Solutions

For improved barrier properties
in polyethylene

Polyethylene with UltraGuard™ Solutions provides controlled crystallization allowing for enhanced properties.

UltraGuard™ Solutions by Milliken is a line of performance additives that brings value to polyethylene parts by improving barrier properties. It can be used in films, and in injection molded, compression molded and blow molded parts.

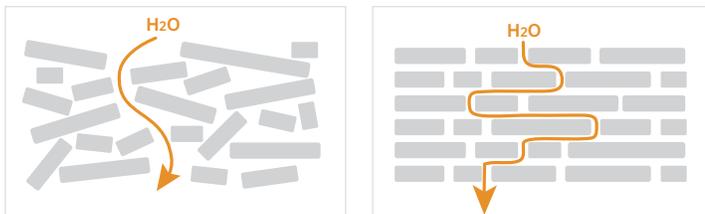
UltraGuard Solutions form a tortuous path in the polyethylene that cuts the transmission rates of any permeant (e.g. moisture, O₂, CO₂, grease, VOCs, solvents) that passes through the packaging by 20-60%.

Improved barrier provides various benefits, such as better product protection, reduced thicknesses of packages that were limited by barrier, and increased design flexibility of the package, all of which helps to advance the effort to create high-performance polyethylene recyclable structures.

These additives offer a validated solution that does not require high capital investment and does not affect processing or other properties of the molded part.



UltraGuard realigns the PE crystalline structure to create a torturous path



HDPE

HDPE with UltraGuard

- Enables more recyclable packaging
- Enhanced product protection and shelf life
- Lightweighting opportunities

Please contact your Milliken representative for further product information including chemical registrations, food contact status, and other regulatory details.

PLEASE NOTE: As each customer's use of our product may be different, information we provide, including without limitation, recommendations, test results, samples, care/labeling/processing instructions or marketing advice, is provided in good faith but without warranty and without accepting any responsibility/liability. Each customer must test and be responsible for its own specific use, further processing, labeling, marketing, etc. All sales are exclusively subject to our standard terms of sale posted at www.milliken.com/terms (all additional/different terms are rejected) unless explicitly agreed otherwise in a signed writing.

NORTH AMERICA
Spartanburg, SC, USA
Tel: 800-910-5592
Fax: 864-503-2430
millichem@milliken.com

EUROPE
Gent, Belgium
Tel: 32-9-265-1100
Fax: 32-9-265-1195
eurochem@milliken.com

LATIN AMERICA
Sao Paulo, Brazil
Tel: 55-11-3043-7942
Fax: 55-11-3043-7096
lachem@milliken.com

LATIN AMERICA
Mexico City, Mexico
Tel: 52-55-3088 3600
Fax: 52-55-9000 2643
lachem@milliken.com

ASIA
Singapore
Tel: 65-6377-0770
Fax: 65-6377-0990
asiachem@milliken.com

ASIA
Shanghai
Tel: 86-21 6145-5555
Fax: 86-21 6145-5558
asiachem@milliken.com

ASIA
Pune, India
Tel: 91.20.6730.7501
Fax: 91.20.6730.7514
asiachem@milliken.com