

Milliken® UltraGuard™ Solutions

For improved barrier properties
in HDPE Tube Shoulders

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. UltraGuard Solutions cut the transmission rate of any substance (e.g. O₂, H₂O, VOC's, grease and solvents) that passes through the polyethylene tube shoulder by up to 50%.

Collapsible polyethylene tubes are a popular type of packaging for cosmetic, food, healthcare and industrial products.

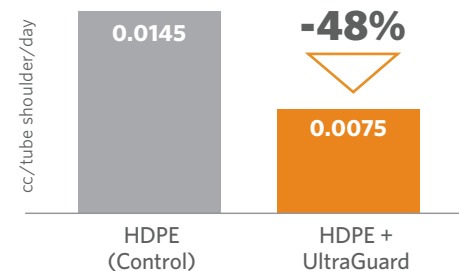
ABL and PBL tube bodies are commonly available in the market which provides adequate gas barrier protection for these products. The barrier properties of the tube shoulder should not be overlooked as the ingress and exit of components through the tube shoulder may affect the appearance and composition of the product during its shelf life.

Alternative methods to improve barrier into tube shoulder are difficult to implement or significantly more expensive.

UltraGuard realigns the PE crystalline structure to create a torturous path



OTR measured on tube shoulder



Test Conditions: ASTM D3985 at 23C, 50% Relative Humidity & 20.9% O₂



- Better product quality
- Longer shelf life

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.

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