

Lightweight pharmaceutical bottles with heavyweight results

Mono-material polyethylene medical packaging designed for recyclability powered by DOW™ HEALTH+™ Polymers

The context

Pharmaceutical packaging plays a crucial role in helping ensure the safety, stability, and tamper resistance of medicine. Strict regulatory requirements focused on patient safety shape every decision in this sector.

At the same time, brand owners have increasingly ambitious sustainability goals. Packaging development efforts are focused on reducing and enhancing packaging size and weight to help lower overall carbon footprint and minimize waste, while utilizing mono-material designed for recyclability.

The challenge

Pharmaceutical companies aim to reduce the weight of packaging bottles without having to compromise on protection.

That is not easy because traditional blow-molded pharmaceutical bottles rely on conventional high-density polyethylene (HDPE), which requires a certain wall thickness to achieve the necessary barrier properties and mechanical strength. This means more virgin plastic is used, higher costs, and heavier packaging—factors that run counter to sustainability goals.

Moreover, medical packaging solutions need to offer safety and performance, and align with regulatory standards.

Our answer

CONTINUUM™ DMDF-6620 HEALTH+™ Bimodal Polyethylene Resin is changing the game for pharmaceutical and nutritional bottles. This innovative high-density polyethylene (HDPE) offers **lightweighting** possibilities through:

- Excellent **barrier performance**
- Exceptional **stiffness & toughness**
- Versatile **processability**
- **Regulatory compliance**
- **High purity and reliable global supply**

By combining these attributes, **CONTINUUM™ DMDF-6620 HEALTH+™ Bimodal Polyethylene Resin** helps LOG Pharma Primary Packaging produce mono-material bottles designed for recyclability that align with circular economy goals – without compromising on patient safety or product protection.



eco

"With DOW™ HEALTH+™ Polymers, we're able to offer a sustainable, recyclable bottle solution that doesn't compromise product protection while helping reduce plastic waste."

It's a win for us and for our customers in the pharma industry who want to align with circular economy goals, and a step in the right direction as the industry works to address plastics-related challenges."

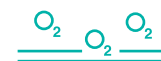
Noam Nahari,
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Up to 30%
lighter bottles



Up to 40–45%
improvement in moisture
barrier (MVTR)



Up to 15–20%
improvement in oxygen
barrier (OTR)



**Compatible with
recycling guidelines** for
plastic packaging



Enhanced
environmental stress
crack resistance



Exceptional
mechanical strength



Smooth processing
across a range of blow
molding applications



**Compliant with
USP Class VI, USP
<661.1>**

What's next? Visit [dow.com](https://www.dow.com) to learn more.

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