

# OXYNOV™ BARRIER BOTTLES



## 6-LAYER EBM BOTTLES FOR ENHANCED PROTECTION

Oxynov barrier bottles are 6-layer extrusion blow-molded (EBM) pharmaceutical containers offering several times the barrier protection from oxygen than standard polyethylene bottles of similar size.

Oxynov bottles provide barrier protection in pharmaceutical applications to inhibit oxidation and enhance shelf life of drug products.

Oxynov bottles allow to reduce the use of oxygen scavenger inside the bottles.

- **High passive oxygen barrier:** Oxynov bottles significantly reduce the Oxygen Transmission Rate (OTR) compared to standard bottles.
- **Full protection:** Oxynov bottles can be paired with humidity-neutral oxygen scavengers for an ideal package solution (exemple with Pharmakeep®)
- **Degradation avoidance:** With Oxynov, the chemical and physical degradation of drug products can be mitigated, sometimes visible in extreme color change (example with tablets below).

with protection



without protection



**Additional protective properties:** In addition to oxygen, Oxynov bottles offer enhanced barrier to moisture and UV.

Oxygen degradation – besides moisture – is one of the major pathways for degradation of pharmaceuticals, probiotics and other healthcare products during production, isolation processes and storage.

Airnov offers various sizes of Barrier Bottles to accommodate different packaging needs.

Range of Oxynov Barrier Bottles:

- BTL 40 cc SP33/400 : material number 25388628001
- BTL 60 cc SP33/400 : material number 25394228001
- BTL 100 cc SP38/400 : material number 25394328001
- BTL 200 cc SP38/400 : material number 25394428001
- BTL 400 cc SP53/400 : material number 25394528001

Oxynov bottle neck finishes are SP400 compliant, so any screw cap produced according to this standard can be used (closures including induction seal is recommended for use with oxygen absorbers).

Airnov can customize specific bottle size design for customer needs.



The 6-layer bottle structure offers barrier against oxygen and moisture:

- Inner layer HDPE
- Regrind layer
- Adhesive
- EVOH
- Adhesive
- Outer layer HDPE

Oxynov bottles are fully compliant with US FDA and EU regulations for use in dry pharmaceutical applications. Oxynov bottles are registered in DMF #20978

Oxynov bottles are USP 38/NF 33 Supplement 1<671> compliant (light & moisture vapor transmission).

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