

The Benchmark of Quality

Low Powder
Retention Capsules



EMBOCAPS®

LPR

embo
caps



EMBOCAPS® LPR

For inhalation applications using HPMC empty hard capsules

Empty hard capsules can be a drug delivery option to be used with Dry Powder Inhaler technologies (DPI). The advantage of DPI compared to a pressurized metered-dose inhaler (pMDI) is that it is convenient to carry, hand-breath simultaneous coordination is unnecessary, and medication delivery is quick even with smaller doses. EMBOCAPS® LPR (Low Powder Retention) is specifically designed and manufactured to be used with inhalation devices.

WHY IS EMPTY HARD CAPSULE IMPORTANT? —————

Unique and different from an oral delivery capsule, the EMBOCAPS® LPR capsule maximizes the efficiency of DPI technology by ensuring the reliability and repeatability of the following capsule characteristics:

Stable puncture site

Shell fragments remain attached to the capsule wall at the puncture site so that only the powder gets inhaled by the patient.

Stabilized low moisture content

The capsule does not dry out and become brittle during shipping, storage or when exposed to hygroscopic ingredients.

Low Powder Retention

It is important to deliver a consistent dosage per course. With a low powder retention capsule, dosage is easily released over a wide range of vacuum pressures with minimal amount left inside.

Low static charge

Static charges can influence the powder retention and cause problematic post filling operations due to the small amounts of fill material used and the resulting low capsule mass.

THE EMBOCAPS® LPR TECHNOLOGY

- Crystal clear capsule
- Extremely low static charge
- Low powder retention (NMT 5%)
- Uniform weight
- Stable low moisture content
- Easy capsule opening
- Microbial levels meeting all pharmacopeial requirements.

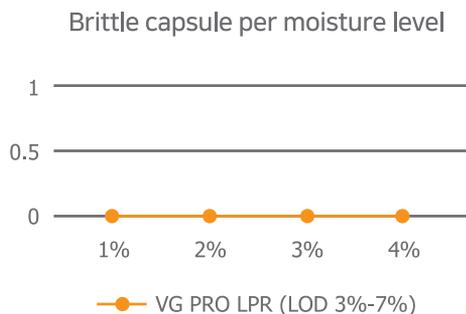


Figure 1 - Size 3 EMBOCAPS® LPR VG Pro post DPI puncture

Excellent puncture performance

Any capsule fragments are still attached to the capsule even after puncturing.

Superior separation in rotation DPIs

PHARMACEUTICAL TRADE DRESS

Add visual attributes to the EMBOCAPS® LPR. The capsule can be manufactured with unique colors and cap/body printing for drug identification and trademark protection. A Size 3 EMBOCAPS® LPR is the typical and preferred capsule size for DPI technology. A translucent colored cap and clear body is recommended for ingredient transparency.

BESPOKE EMPTY CAPSULES

EMBOCAPS® can offer further customization services to create exclusive capsules for different types of inhalation devices.

- Tighter weight variation
- Separation strength adjustments for rotation DPIs

The Benchmark of Quality



www.embocaps.com