



EZ BioPac[®]

BOOST PROFITS WITH
EZ BIOPAC SINGLE-USE
POWDER TRANSFER



MEETING THE CHALLENGES OF BIOPHARMACEUTICAL POWDER MANUFACTURE

Today, manufacturers are optimizing open-suite facility design to maximize throughput and profitability.

Key to this initiative is minimizing product loss due to feedstock spills, waste and cross-contamination. Improving the safety of workers is also a driving factor, through reduced exposure to airborne particles and lowering the risk of particle ignition. In order to accomplish both, a highly efficient powder transfer and containment system is required — one that is designed exclusively for powders, not one adapted from a liquid transfer system.

The EZ BioPac® single-use system is the fastest, most efficient solution. Its larger diameter top opening permits easy filling and fine-tuning of final weight. It is suitable for a wide range of filling/dispensing volumes, flow rates and product weights. Plus, its rugged, disposable transfer bags feature antistatic properties, assuring fast, complete discharge into process vessels.

Competitive 2D bags have a narrow fill opening, making weight adjustment awkward.





EZ BioPac: 10 ADVANTAGES, ONE SMART SOLUTION

1 EASE OF FILL

Liquid-based bag systems have narrow openings, slowing fill time. EZ BioPac's generous opening speeds filling while reducing risk of overfills, spills or surface contamination.

2 FINE-TUNING

Narrow-neck bags make removing material to fine-tune weight difficult. EZ BioPac's big opening allows fast fine-tuning with a large scoop.

3 71% FASTER FILLS

In direct-comparison trials, the EZ BioPac bag's larger opening and skirt reduced fill times substantially, compared to traditional 2D transfer bags.

Filling Trials — Time to Fill to 5.0 kg

| TEST # | TEST MEDIA | EZ BIOPAC® | 2D TRANSFER BAG |
|----------|-------------------|-----------------------------|-----------------------------|
| | | PROCESS FILL TIME (MIN:SEC) | PROCESS FILL TIME (MIN:SEC) |
| Trial #1 | Magnesium Sulfate | 2:03.91 | 3:09.21 |
| Trial #2 | Magnesium Sulfate | 1:54.66 | 3:01.06 |
| Trial #3 | Magnesium Sulfate | 1:37.07 | 3:24.13 |

ILC Dover EZ BioPac® bag with generous fill opening and protective skirt.





4 REDUCED CONTAMINATION RISK

Competitive single-use bag surfaces can become contaminated from product spills or overflows. EZ BioPac's outer skirt folds down to protect the frame and bag exterior, then up again to seal contaminants inside.

5 TWO SEALING OPTIONS

EZ BioPac bags can be sealed by making a V-fold by hand and securing with attached cable ties or using a WeLoc® clamp..

6 SEPARATE DISCHARGE OUTLET

Unlike competitive 2D bags, EZ BioPac bags feature a separate discharge outlet that ensures a clear, clean discharge path and fast product transfer.

7 18% FASTER DISCHARGE

Discharge Trials — Time to Discharge 5.0 kg

| | | EZ BIOPAC® | 2D TRANSFER BAG |
|----------|------------|--------------------------|--------------------------|
| TEST # | TEST MEDIA | DISCHARGE TIME (MIN:SEC) | DISCHARGE TIME (MIN:SEC) |
| Trial #1 | Flour | 1:49.0 | 1:45.0 |
| Trial #2 | Flour | 1:51.81 | 2:03.07 |
| Trial #3 | Flour | 1:21.42 | 2:10.70 |

8 *NO PRODUCT RESIDUE*

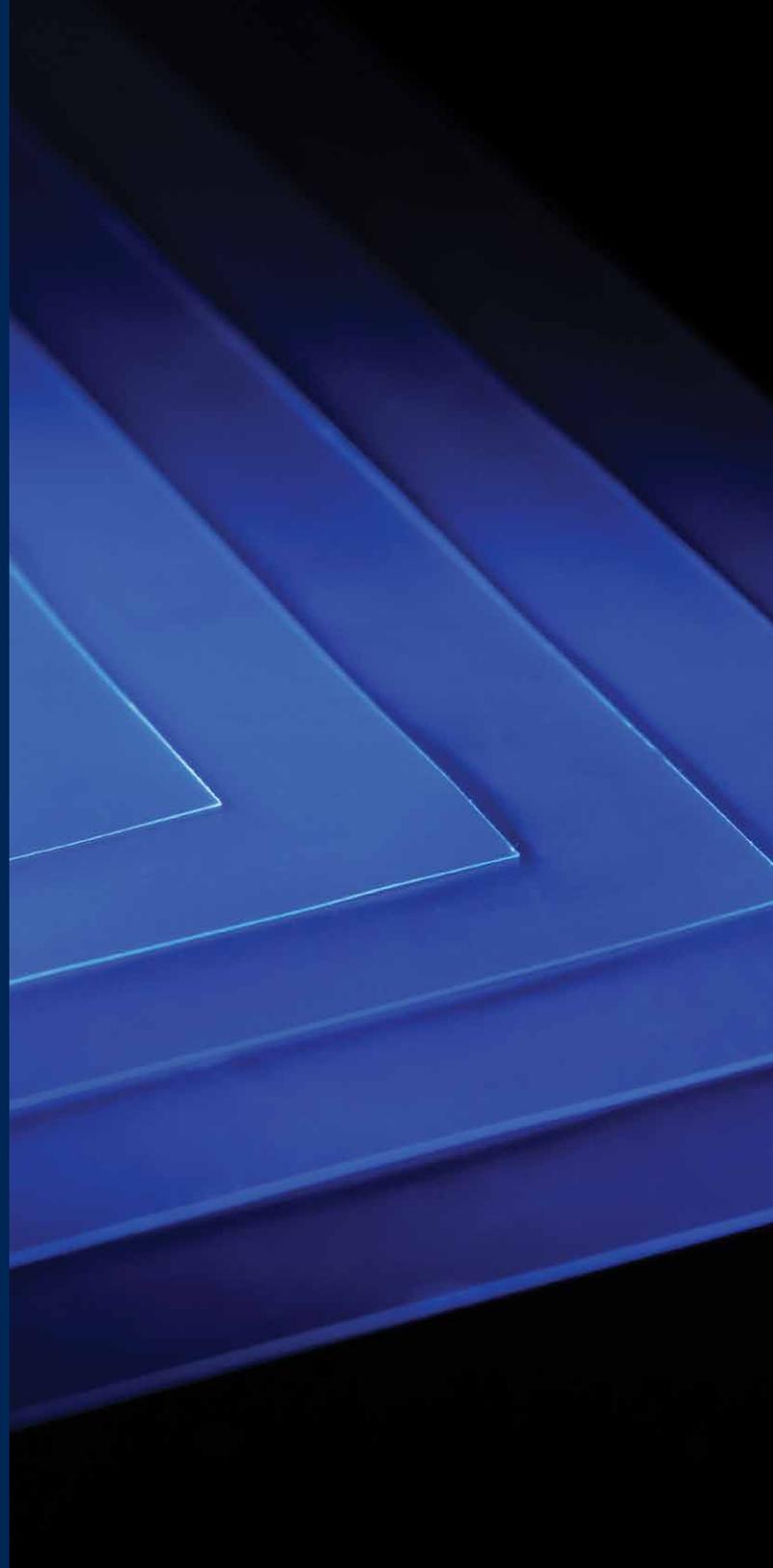
EZ BioPac's ArmorFlex®114 film has static dissipative properties, preventing product from clinging inside the bag, maximizing value and ensuring accurate dispense volumes.

9 *SELF SUPPORTING FRAME*

Other bag systems can tip over or move. EZ BioPac's strong, lightweight frame secures bags of various volumes during filling and scooping. No need for barrels or containers.

10 *FULL RANGE OF BAG VOLUMES AND FLANGE SIZES*

To provide maximum flexibility for its customers and to guarantee the right-size product for all applications, ILC Dover makes EZ BioPac bags available in a full range of capacities and flange sizes.





CERTIFIED QUALITY FOR GMP AND PEACE OF MIND

EZ BioPac's ArmorFlex film meets FDA and 2002/72/EC requirements and EP 3.1.3 test conditions. In addition, it complies with FDA 21 CFR and passes USP <661> Physiochemical Tests for Plastics, USP <88> Class VI (7-day implant), USP <87> biological reactivity (in vitro) and Chilworth incendivity tests. Its permanent anti-stat has a five-year shelf life and replaces migrating additives. EZ BioPac is also tested for solvent resistance, and a DMF has been filed with FDA.



To order or learn more about the EZ BioPac single-use bag system, please send an email to customer_service@ilcdover.com, call **+1.800.631.9567** or visit us at www.ilcdover.com.



BEYOND BOUNDARIES™

Innovators at our core, we develop engineered solutions for our customers' complex problems. Recognized globally for our flexible containment solutions, ILC Dover serves customers in a diverse range of industries, including pharmaceutical and biopharmaceutical manufacturing, personal care, food and beverage, chemical, aerospace, healthcare and government agencies. At ILC Dover, quality is a culture, not a measurement. Our customers will tell you that we cater to their every need and that we're highly innovative, responsive, dedicated and competitive. We have been innovating since 1947. ILC Dover's visionary solutions improve efficiency, safeguard workers and product, and prevent disasters — proof that we are on the front line of business excellence.

Engineering evolution beyond boundaries.



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