



DURABAC™

Microbial Encapsulation Technology

Stability is the most critical factor in probiotic product quality. Durabac™ is ProbioFerm's proprietary encapsulation coating process—engineered to protect bacterial cells against oxygen and moisture exposure throughout manufacturing, packaging, and storage.

What is Durabac™?

ProbioFerm developed Durabac™ to address probiotic manufacturing's most persistent challenge: keeping sensitive microorganisms viable when they are most at risk. Bacteria exposed to oxygen, moisture, and mechanical stress during manufacturing and packaging can suffer significant potency loss before a product ever reaches the consumer.

Durabac™ surrounds each bacterial cell with a protective encapsulation barrier—reducing oxygen and water activity exposure, enabling bacteria to survive processing in better condition, and remaining more potent and viable in the finished product throughout its entire shelf life.

Key Benefits

Moisture & Oxygen Barrier

Creates a physical protective barrier against water activity and oxygen—the primary drivers of probiotic degradation in dry manufacturing environments.

Processing Stability

Coating cultures before carrier mixing maintains cell integrity through blending, filling, and packaging where unprotected bacteria are most vulnerable.

Shelf Life Assurance

More stable bacteria in the finished package gives your customers confidence in potency and product viability through end of shelf life.

How It Works: The Encapsulation Process

01

Culture Preparation

Probiotic bacterial cultures are characterized prior to encapsulation; strain identity and CFU counts are verified against batch specifications.

02

Multi-Layer Coating

A step-by-step process coats each bacterial cell with protective layers, creating a physical barrier against oxygen and water activity.

03

Pre-Blend Processing

Encapsulated cultures are coated prior to mixing with a carrier, maintaining integrity through blending and formulation steps.

04

Packaging & Shelf Life

The finished encapsulated product delivers improved stability in the final package, supporting potency and viability through end of shelf life.

APPLICATION NOTE: Dry Products Only – Durabac™ is not fully soluble in water and is formulated for dry applied products only. Contact our R&D team to discuss compatibility for alternative delivery formats.

Let's Build Better Cultures Together

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