

ES 8001

Bread Improver

Bread Improver ES 8001 is a multifunctional emulsifier-enzyme blend, a versatile bakery improver ideal for breads and buns, including wholegrain varieties. It enhances dough strength and machinability while also promoting crumb softness.

Features of Bread Improver ES 8001

- Multipurpose blend working well in various bread, bun and rolls.
- Ease of use, powder can be mixed directly with flour.
- As a dough strengthener and crumb softener.

Formulation Consideration while using Bread Improver ES 8001

- Recommended dosage: 0.5 - 1% based on flour weight.
- No additional improver, softener is required.
- Water and fat level can be adjusted based on flour and process used for production.

Advantages of Bread Improver ES 8001

- Supports dough strength, handling and machineability.
- Aids dough relaxation and enables pan flow for bun products.
- Improves product volume and appearance.
- Improves fine and uniform crumb.
- Prolongs shelf life by keeping soft and moist texture throughout storage.
- Ensures consistency across batches by mitigating variations in flour quality.
- Improves bread/bun volume and appearance, especially for high sugar rich doughs where dough strength is critical.
- Minimizes white ring fault seen in buns.

Outcome and Results

Bread Improver ES 8001 helps to enhance gluten structure, stabilize gas bubbles, and retain moisture, ultimately leading to higher quality baked goods with better texture and shelf life. This makes it a valuable ingredient, particularly for industrial-scale production where consistency and quality are crucial.

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ES 8001 Applications

No Time Dough method				Sponge and Dough method	
Wholemeal bread	Sweet bun (>20% sugar)		Bread roll	White bread	
					
White bread	Soft bun				
					

Performance in White bread – No Time Dough

	ES 8001, 0.3%	ES 8001, 0.5%	ES 8001, 0.7%	ES 8001, 1%	
Dough	Less strong, less smooth, less relaxed	Strong, less smooth, relaxed	Strong, smooth, more relaxed	Strong, Smooth, more relaxed, higher water absorption	✓ Increases water absorption, enables higher yield
Volume, ml	2547	2528	2583	2499	✓ Good dough handling
Internal					✓ Supports side wall strength
Softness (Day 1), g	754	462	412	400	✓ Fine, uniform crumb
Softness (Day 7), g	966	823	690	630	✓ Soft, moist bread that remains fresh with storage
Eating quality	Less soft, less moist	Soft, moist	Very soft, more moist	Very soft, very moist	

Performance in Soft bun (10% sugar)

	ES 8001, 0.3%	ES 8001, 0.5%	ES 8001, 0.7%	ES 8001, 1%	
Dough	Less smooth, less relaxed	Less smooth, less relaxed	Smooth, relaxed, higher water absorption	Smooth, more relaxed, higher water absorption	✓ Increases water absorption, enables higher yield
Volume, ml	200	198	192	198	✓ Good dough handling
Crust smoothness					✓ Improved product appearance
Internal					✓ Fine, uniform crumb
Softness (Day 1), g	616	579	641	556	✓ Softer, more moist bun
Softness (Day 7), g	1115 (firm)	1051 (less soft)	1014 (less soft)	1061 (soft)	
Eating quality	Less soft, dry	Soft, less moist	Soft, more moist	Very soft, very moist	