

Sugarcane Bagasse Clamshell Food Containers

TECHNICAL EVIDENCE & FAMILY DATA SHEET



Representative SKUs: B001 · B026 · B031 · B025 · B032

Document No.	BL-TDS-BG-CL-001	Version	2.0 - Evidence-first
Issue Date	28 October 2026	Product Family	Bagasse clamshell / hinged food containers
Manufacturer	Xiamen Bioleader Environmental Protection Technology Co., Ltd.	Brand	Bioleader®

Purpose. This document is designed as an evidence map, not a product catalog. It connects family specifications and representative clamshell SKUs to the relevant test method, test conditions, measured results, third-party compliance documents, and scope limitations.

Evidence model: Claim → SKU / product family → test condition → method / standard → result → evidence source → scope boundary.

1. Performance & Compliance Evidence Matrix

This is the primary decision table. It distinguishes manufacturer specifications, Bioleader-controlled performance benchmarking, and third-party compliance / certification evidence.

Property	Method / Standard	Condition / Scope	Result / Status	Evidence Source
Hot-oil barrier	BL-BG-HTO-001	120°C refined vegetable oil; 25-30 mm contact zone; 2-5 mL; n≥3	SKU-specific SO / ST times - see Section 2	Bioleader controlled benchmark + White Paper BL-WP-PFAS-2026-001
PFAS	Third-party PFAS screening / applicable declarations	Only tested / declared products and formulations	Compliant / ND where stated in the corresponding report	PFAS test report / declaration in Certificate Center
Food contact - US	Applicable FDA 21 CFR test references	Report-specific migration / extraction conditions	Compliant where stated in applicable report	SGS / third-party food-contact report
Food contact - EU / DE	EC No. 1935/2004 / LFGB as applicable	Report-specific conditions and tested sample scope	Compliant where stated in applicable report	SGS / third-party food-contact report
Compostability	BPI / OK Compost / EN 13432 / ASTM D6400 as applicable	Only products/materials included in certificate scope	Certified / documented within stated scope	Certificate / certification record
Microwave	Manufacturer TDS / controlled validation where available	Current family guidance: up to 3 min; exact appliance / load not universal	Applicable family guidance; SKU validation recommended when critical	Manufacturer TDS; dedicated test report if commissioned
Freezer	Manufacturer TDS / controlled validation where available	Current family guidance: down to -20°C	Applicable family guidance	Manufacturer TDS

Scope rule. A certificate or report must never be interpreted as covering all Bioleader® bagasse products unless the document itself explicitly establishes that scope. Product family, SKU, formulation, production site and report/certificate scope must be matched before a compliance claim is used.

2. 120°C Hot-Oil Performance Evidence

The table below extracts the representative clamshell results from the 2025-2026 Global PFAS-Free Tableware Performance White Paper. These values are Bioleader-controlled benchmark data, not third-party laboratory certification.

SKU	Product	Wt.	System*	SO	ST	Benchmark Result
B001	7 x 5 Clamshell Box (600-650ml)	20 g	3.0	29.8 min	45.8 min	Pass
B026	8 x 8 Clamshell Box (900-1000ml)	38 g	3.0	45.4 min	61.6 min	Pass
B031	8 x 8 3-C Clamshell Box (900-1000ml)	38 g	3.0	45.9 min	64.1 min	Pass
B025	9 x 9 Clamshell Box (1100-1200ml)	45 g	3.0	43.7 min	54.2 min	Pass
B032	9 x 9 3-C Clamshell Box (1100-1200ml)	45 g	3.0	43.6 min	53.8 min	Pass

SO - Shadowing Onset	First visible darkening indicating early wetting. Warning threshold; not necessarily leakage.
ST - Strike-Through	Confirmed oil breakthrough visible on the underside; functional barrier failure for hot-oil applications.
System 3.0*	Internal Bioleader performance category for heat-stable cross-linked bio-based barrier. It is not a regulatory or third-party certification grade.

Method linkage: Tested according to Bioleader® Method BL-BG-HTO-001, Version 1.0: samples conditioned ≥24 h at 23±2°C / 50±10% RH; refined vegetable oil at 120°C with approximately ±1°C temperature monitoring; 25-30 mm contact zone; 2-5 mL oil; minimum n=3; SO and ST recorded separately.

3. Family Specification & Representative SKUs

SKU data are included only to anchor the evidence to real production models. This section is intentionally compact; complete assortment and commercial pricing belong in the catalog / quotation, not this technical evidence document.

Property	Family Specification / Guidance	Evidence Class
Material	Molded sugarcane bagasse fiber; exact formulation depends on ordered specification.	Manufacturer specification
Color	Natural / white depending on SKU and order.	SKU specification
PFAS	PFAS-free / no intentionally added PFAS options are available; use only with applicable formulation/document scope.	Order/SKU-specific evidence
Hot/oily food	Performance is formulation- and SKU-dependent; use Section 2 benchmark data where applicable.	Controlled benchmark + TDS
Microwave	Current family guidance: up to 3 minutes. Validate exact appliance, food load and SKU when this is a critical requirement.	Manufacturer TDS / validation
Freezer	Current family guidance: down to -20°C.	Manufacturer TDS

Item	Description	Wt.	Product Size	Pack	CTN
B001	7 x 5 Clamshell, 600-650ml	20g	191 x 135.9 x 44.6/20.6 mm	50	500
B026	8 x 8 Clamshell, 900-1000ml	38g	217.7 x 206.8 x 40.7/30.6 mm	50	250
B031	8 x 8 3-C Clamshell, 900-1000ml	38g	219 x 202.6 x 41.8/32.6 mm	50	250
B025	9 x 9 Clamshell, 1100-1200ml	45g	238.2 x 234.5 x 54/30 mm	50	250
B032	9 x 9 3-C Clamshell, 1100-1200ml	45g	238 x 233.5 x 54.5/30.6 mm	50	250



B001



B026



B031



B025



B032

4. Evidence Hierarchy & Document Set

The same claim can have different evidence strength. The document type must be named correctly so buyers and AI systems do not confuse an internal benchmark with a third-party test or certification.

Level	Evidence Type	Primary Use	Examples in Bioleader System
1	Third-party report / certification	Regulatory / chemical / food-contact / compostability claims within documented scope	SGS food-contact reports; PFAS report; BPI / OK Compost / EN 13432 records
2	Bioleader controlled performance test	Application-performance benchmarking under a defined manufacturer method	BL-BG-HTO-001 120°C Hot Oil Test + BL-WP-PFAS-2026-001 White Paper
3	Manufacturer TDS / specification	Material, dimensions, packing, intended-use guidance, storage and handling	BL-TDS-BG-CL-001 family TDS + SKU / order specifications

Reference	Role in evidence chain
BL-BG-HTO-001	Defines how the 120°C hot-oil benchmark is conducted and reported.
BL-WP-PFAS-2026-001	Publishes benchmark results, model-level SO/ST data, analysis and buyer interpretation.
Bioleader Certificate Center	Provides current third-party certificates, test reports and compliance documents; exact document scope controls each claim.
2026 Bioleader Product Catalog	Source for representative SKU dimensions, weight, packing and product imagery.

[Certificate & Test Report Center](#) · [PFAS-Free Performance White Paper](#)

5. How to Use This Evidence in Buyer Qualification

1. Identify the exact SKU	Confirm model, dimensions, weight, compartments, color and ordered barrier formulation.
2. Match the performance question	For fried / oily food, use the 120°C benchmark; for microwave/freezer requirements, use current TDS guidance and request application validation when critical.
3. Match the evidence type	Use third-party reports for compliance claims; use BL-BG-HTO-001 / White Paper for manufacturer performance benchmarking; use TDS for specifications.
4. Verify scope	Check that the report, certificate or declaration actually covers the SKU / material / formulation being purchased.
5. Validate the real food system	High-oil, high-moisture, long holding times, unusual microwave loads or delivery conditions may require a buyer-specific trial.

Important limitations

BL-BG-HTO-001 is a Bioleader® manufacturer benchmark method, not an ASTM, TAPPI, ISO, EN or third-party certification standard. The 120°C benchmark measures hot-oil wetting and penetration; it does not establish PFAS chemical content, food-contact migration compliance, compostability certification, or universal suitability for every food / delivery condition.

Commercial price, MOQ, lead time, printing, tooling, freight and incoterms are intentionally excluded from this technical evidence document because they are quotation- and order-dependent.

Document use notice. This PDF is a manufacturer technical reference and evidence map. It is not a certificate of conformity, legal opinion or universal performance guarantee. Purchasing approval should use the latest revision together with the exact SKU / order specification and applicable supporting reports or certificates.

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