

CNCGLASS Vacuum Bag Film

Multilayer Composite for Vacuum Bag Processes

Technical Product Catalog · English · NO prices

Brand: **CNCGLASS**

Company: **CNC Ucolin Interlayer Technology Co., Ltd.**

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Vacuum bag film for laminated-glass vacuum bagging and composite / wind-blade vacuum-bag processes · polyester-composite nylon · curing-oven compatible · high tensile · good vacuum barrier.



Figure 1. CNCGLASS multilayer composite vacuum bag film (yellow) — product photo from linked page, watermarked.

1. Product Overview

This **CNCGLASS** vacuum bag film is a tough multilayer composite membrane (polyester-composite nylon), yellow in color, engineered for vacuum-bag processes. Maximum service temperature 160 °C; high tensile strength; suitable for use in curing ovens; good vacuum barrier performance; compatible with multiple resin vacuum-bag systems. Primary industrial references include wind-blade and nacelle composite manufacture; the same vacuum-bag principle is widely applied in laminated-glass vacuum bagging / vacuum-oven lines for architectural and safety glass.

Industry practice (public vacuum-bagging literature): a typical glass / composite vacuum-bag stack uses release film or peel ply, breather / bleeder fabric, sealant tape at the perimeter, and a nylon or nylon-composite bag film as the outer airtight membrane. Vacuum removes entrapped air and volatiles before / during heat cure.

2. Technical Specifications

Facts below are product properties (no model / SKU shown). Custom size and thickness available on request.

Dimensions & forms

Thickness	Max width	Roll forms
50 µm	12 m	Tubular / Sheet / Centerfold

65 µm	12 m	Tubular / Sheet / Centerfold
75 µm	12 m	Tubular / Sheet / Centerfold

Material & mechanical properties

Property	Value	Test method
Material	Polyester-composite nylon	—
Elongation at break	450%	ASTM D882
Tensile strength	45 MPa	ASTM D882
Max service temperature	160 °C	—
Color	Yellow	—

Custom size / thickness: available to customer requirements.

3. Vacuum Bag Principle

The bag film forms an airtight envelope over the laminate (or composite layup). Sealant tape closes the perimeter to the tool / table. A breather layer provides in-plane air paths to the vacuum port. Under vacuum, atmospheric pressure consolidates the stack and extracts air / volatiles before or during oven cure.

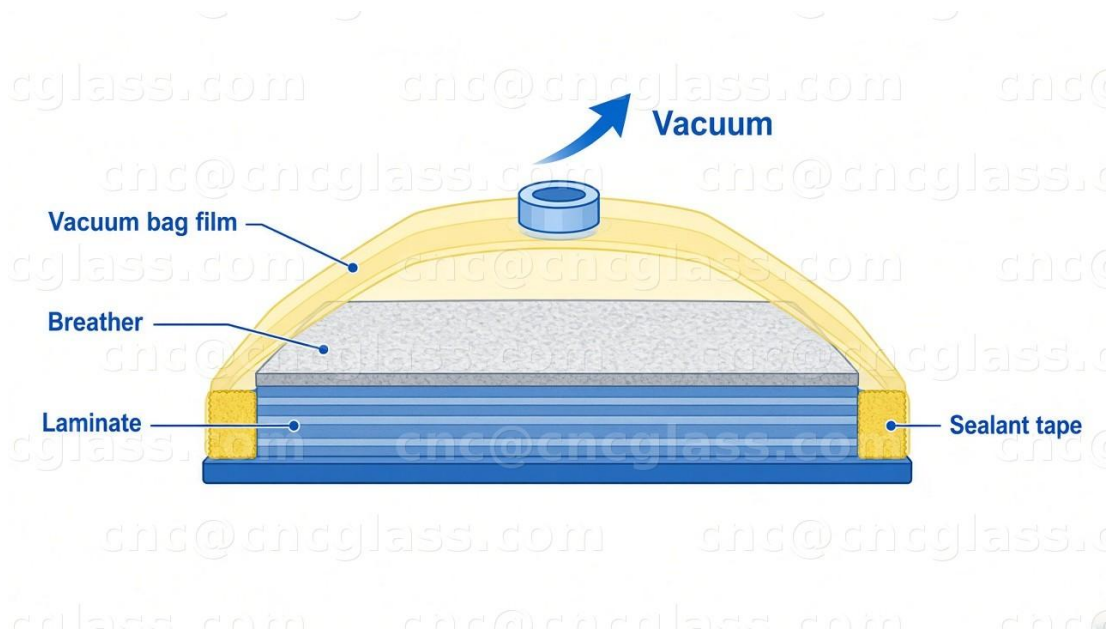


Figure 2. Vacuum bag principle: film over laminate + breather + sealant tape; vacuum drawn through port (schematic).

For laminated glass: vacuum bagging (or vacuum-oven bagging) is used to de-air EVA / ionoplast / PVB stacks and hold uniform contact during heat cycles — complementary to autoclave or silicone-bag lines depending on shop equipment.

4. Multilayer Structure (Schematic)

Base description from product facts: polyester-composite nylon multilayer film. Figure 3 is an educational cutaway only — typical barrier / toughness layer roles (outer toughness, gas barrier, nylon strength). Exact coextrusion chemistry is not published on the source page and is not claimed here.

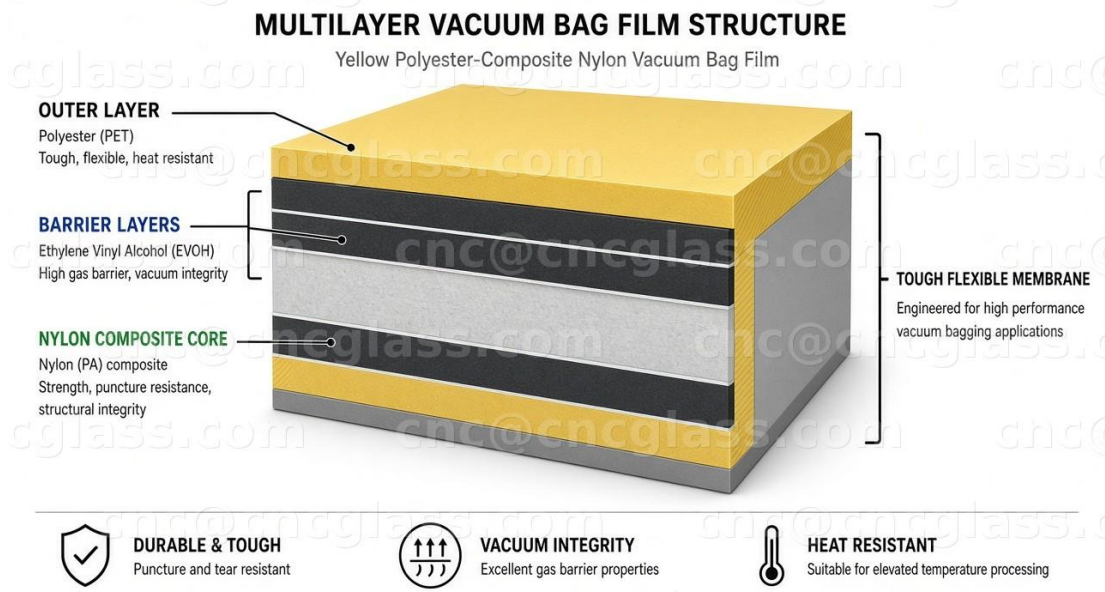


Figure 3. Multilayer polyester-composite nylon film structure sketch (educational schematic; not a claimed coextrusion recipe).

Schematic layer names (PET / barrier / PA) follow common public multilayer vacuum-film teaching diagrams — treat as concept, not a datasheet claim.

5. Oven / Vacuum Process

Typical shop flow: (1) lay laminate or composite on tool; (2) place release / peel ply and breather as required; (3) cover with vacuum bag film; (4) seal perimeter with sealant tape; (5) connect vacuum port and pull vacuum; (6) transfer into curing oven while holding vacuum (or hold vacuum through prescribed heat profile). Film rated to 160 °C supports many resin and interlayer cure windows below that ceiling — always verify against your resin / interlayer TDS.



Figure 4. Oven / vacuum process: bagged laminate under vacuum before or during curing-oven cycle (illustrative).

6. Applications

CNCGLASS multilayer vacuum bag film is positioned for:

- Wind-turbine blade and nacelle composite vacuum-bag / infusion processes (as stated on product facts).
- Laminated safety / architectural glass vacuum bagging and vacuum-oven de-airing where nylon-composite bag film is appropriate.
- Other resin vacuum-bag processes needing a tough, high-elongation, 160 °C-capable yellow bag membrane up to 12 m width.



Figure 5. Applications: laminated-glass vacuum bagging (left) and large composite / wind-blade bagging (right).

7. Packaging, Storage & Handling

- Store in a dry place, away from light / direct sun.
- Storage surface should be smooth; clear away sharp objects to avoid punctures.
- Handle gently when moving and deploying rolls.
- During use, protect the film surface — do not place or contact sharp items that could pierce the membrane.

Roll forms: tubular, sheet, and centerfold — choose form to match layup geometry and seal strategy.

8. Notes for Glaziers & Laminators

- Match film thickness (50 / 65 / 75 μm) to part size, edge sharpness, and cycle count expectations — thicker film generally improves puncture margin on sharp glass edges.
- Confirm oven set-points stay within 160 °C max service temperature with adequate margin for local hot spots.
- Leak-check bags before heat; pinholes defeat vacuum and cause bubbles / voids in laminated glass and dry spots in composites.
- Pair with compatible sealant tape and breather; film alone does not replace a designed vacuum stack.

Shop tip from public bagging guides: inspect for wrinkles that bridge sharp corners — they can tear under vacuum. Smooth film and use pleats intentionally at transitions.

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Ask **CNCGLASS** for roll form, width, and thickness matching your vacuum-oven or composite line.