

AeroFilm® VB160



Key Features

- Excellent elongation
- Very conformable
- 160°C service temperature
- Multilayer Nylon reliability
- Cost-effective

Product Description

AeroFilm® VB160 is a high quality, general purpose multilayer nylon vacuum bagging film suitable for conventional vacuum bagging, resin infusion and prepreg applications (for curing in our out of autoclave).

Compared to many bagging films, VB160 offers superior flexibility and elongation which improves consolidation and pressure, especially in tight corners or over particularly complex mould shapes. This superior flexibility results in less 'bridging', reduced pin-holing and improved surface finish of laminates - especially for sensitive 'out-of-autoclave' curing processes.

VB160 has also been designed to provide improved resistance to accidental tears and puncture during handling making it a preferred choice in busy manufacturing environments.

The film is suitable for use up to a maximum temperature of 160°C. For cure temperatures up to 204°C/400°F, see our aerospace-grade AeroFilm® VB200.

Recommended Uses

- Resin infusion
- Prepreg laminating (out-of-autoclave or autoclave)
- Wet-lay vacuum bagging
- Vacuum bonding/veneering
- Safety glass lamination

Multi-layer Reliability

AeroFilm® VB160 uses multiple layers for maximum reliability. Multilayer technology eliminates problems caused by imperfections, pin holes or weaknesses in the film by combining layer after layer into a single, ultra-reliable film.

Lay Flat Tube Format

AeroFilm® VB160 is supplied at 1.52m wide in a lay-flat tube (LFT) format meaning that off the roll it is two layers of film with either edge already sealed. This means that each linear metre supplied is actually 3.04sqm.

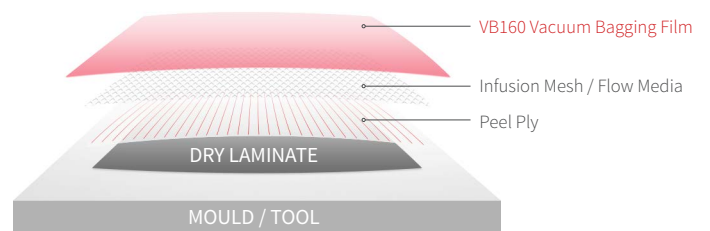
Working with film in a lay flat tube format like this means that it's often possible to make use of one or both of the existing seams, reducing the amount of bagging tape required to seal your bags and speeding-up the bagging process. It also makes it possible to slit the bag down just one side and open it up to a very wide 3m width - ideal for large bagging projects.

Typical Use

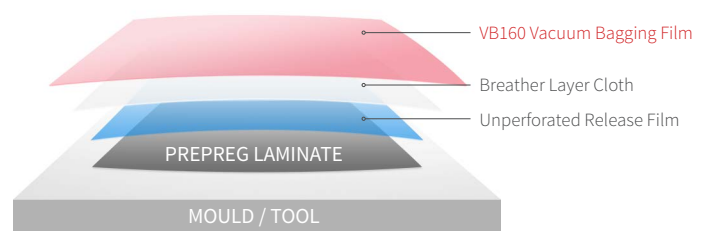
VB160 Vacuum Bagging Film is our recommended bagging film for a wide range of vacuum bagging applications including resin infusion, prepregs, wet-lay vacuum bag and vacuum bonding/pressing.

This film will provide the outermost layer for a range of different vacuum bagging processes, some typical examples are listed below.

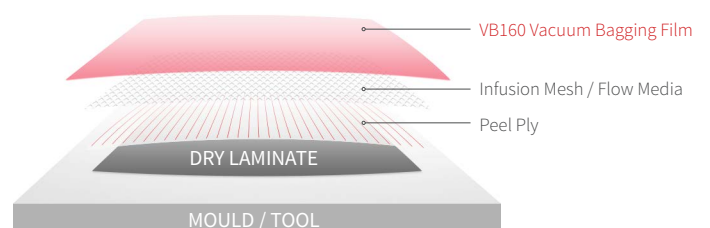
Example Stack : Resin Infusion



Example Stack : Prepreg Laminating



Example Stack : Vacuum Bagged Wet-Layup



Specification

Property	Units	Method	Value
Material	-	-	Multilayer Nylon
Width	mm	Internal	1524 (-0 +2%)
Format	-	-	Lay Flat Tube
Nominal Thickness	µm	ISO 4593	50 ± 10%
Maximum Use Temperature	°C	Internal	160
Density	g/cm ³	Internal	1.05
Tensile Strength at Break MD	N/mm ²	ASTM D882	55 ±10%
Tensile Strength at Break TD	N/mm ²	ASTM D882	53 ±10%
Elongation at Break MD	%	ASTM D882	450 ±10%
Elongation at Break TD	%	ASTM D882	470 ±10%
Appearance	-	-	Red/Pink. Translucent.

Alternative Widths & Formats

This film is held in stock at the 1.52m width. Special widths (and formats) may be available for larger orders, subject to a minimum order quantity.

Handling & Storage

Nylon bagging films are hygroscopic and their behaviour and mechanical properties are affected by their moisture content; particularly the elasticity and softness of the film. Moisture content acts as a plasticiser - a low moisture content will result in a stiffer, less elastic film.

To preserve the performance of the film and ensure consistent behaviour, store unused film in a sealed bag and away from particularly dry conditions.

Recommended storage and use conditions are 65% relative humidity and 20°C/68°F workshop temperature.

Disclaimer

This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum.

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