

PRO-VAC offers readily accessible products to fulfill the needs of technically advanced composites manufacturers. Our products cover the spectrum from low-temperature wet lay-up and infusion to autoclave curing.

## **General Purpose Vacuum Bag Film**

A tough, puncture resistant co-extrusion of polyolefin and nylon based resins. Use in the production of epoxy and polyester/vinylester resin infused components. Limited sensitivity to low humidity levels. Thickness 75  $\mu m$  (2.95 mil). Can be used up to 120°C (250°F).

PV-150-2	2 m x 400 m (6.5' x 1312')
PV-150-4	4 m x 200 m (13' x 656')
PV-150-6	6 m x 125 m (19.5' x 410')
PV-150-8	8 m x 80 m (26' x 262.5')
PV-150-12	12 m x 30 m (39' x 98')
PV-150-16	16 m x 30 m (52.5' x 98')

#### **Nylon Release Fabric**

A heat-set and scoured nylon 6,6 peel ply fabric. Designed for composite processing. Red tracer indicates peel ply left behind on the laminate. The fabric leaves a finish that can aid in the sanding or grinding of the laminate. Not recommended for use with phenolic resins. Can be used up to 210°C (410°F).

PV-30-1.52 1.52 m x 100 m (5' x 328')

## **Polyester Release Fabric**

For hand lamination and the vacuum infusion process. Red tracer indicates peel ply being left behind on the laminate. The fabric leaves a finish that can aid in the sanding or grinding of the laminate. May be used with phenolic resins as well as all other standard resin systems. Can be used up to 180°C (356°F).

PV-35-1.52 1.52 m x 100 m (5' x 328')

### **General Purpose Release Film**

For use in resin infusion processing of advanced composite structures. It is compatible with a wide range of epoxy, polyester and vinylester resin systems. The perforations are hot needled to ensure even resin saturation throughout the laminate. The films are sky blue. P3 is for wet bagging and pre pregs. P31 is for vacuum infusion. Thickness 28  $\mu$ m (1.1 mil). Can be used up to 125°C (257°F).

PV-40-P3 1.52 m x 500 m (5' x 1640') PV-40-P31 1.52 m x 500 m (5' x 1640')

## **High-Flow Infusion Mesh**

Extruded PE grid mesh. Recommended for flat panels and single curvature molds due to the stiffness of the material. Compatible with all standard epoxy, polyester and vinylester resin systems. A faster flowing mesh compared to the standard knitted types. Can be used up to 120°C (250°F).

PV-53 1.2 m x 50 m (4' x 164')

### **Low-Flow Infusion Mesh**

A 3D PE knitted mesh, compatible with all standard epoxy, polyester, and viny-lester resin systems. Slower flow, economical, black "shade cloth." 3D knitted mesh. For all geometries of composite structures. Drapes and conforms easily to compound shapes. Can also be used as a reusable breather for debulking at room temperature. Can be used up to 120°C (250°F).

PV-50-2 2 m x 100 m (6.5' x 328')

### **General Purpose Sealant Tape**

Maximum use temperature 150°C (302°F). 3 mm x 12 mm x 15 m (.1" x .5" x 49') long rolls. Improved level of tack and handleability. Performs best at room temperature (+20°C/+68°F); if the tape is too cold the tack levels will be dramatically reduced. For use in vacuum infusion, wet lay-up bagging and bag-to-bag (envelope bagging) processing. Compatible with most vacuum films and tool surfaces. Remove tape from the mold at room temperature.

PV-80-3 22 rolls of 12 mm x 15 m (.5" x 49')

## **Pressure Sensitive Multipurpose Tape**

An economical, pressure sensitive, silicone adhesive, polyester tape intended for general workshop use. Easily removed following oven or autoclave processing. Blue for easy identification on the mold. Maximum use temperature of 180°C (356°F).

PV-25-25 9 rolls of 25 mm x 66 m (1" x 216.5') PV-25-50 4 rolls of 50 mm x 66 m (2" x 216.5')

### 4.4 oz. Breather Fabric

PET breather/bleeder. Good drapability and works well with single curvature and complex parts. Good for autoclave pressure process and can be used in multiple layers to increase the flow capacity. Areal weight 150 g/m $^2$  (4.42 oz/yd $^2$ ). Maximum use temperature of 204 $^\circ$ C (400 $^\circ$ F).

PV-90

1.52 m x 100 m (5' x 328')

### 10 oz. Breather Fabric

PET breather/bleeder. Good drapability and works well with single curvature and complex parts. Good for autoclave pressure process and can be used in multiple layers to increase the flow capacity. Areal weight 340 g/m $^2$  (10.02 oz/yd $^2$ ). Maximum use temperature of 204 $^\circ$ C (400 $^\circ$ F).

PV-92

1.52 m x 50 m (5' x 164')

## **Flexible Mold Release Tape**

High-temperature unreinforced Teflon tape removes cleanly from demanding substrates after high-temperature and pressure cure cycles. Rated to 260°C (500°F). Silicone adhesive as standard. High tensile strength and low elongation properties. Ideal for surface release on mold flanges and for covering joints when using the MLR-5 mold release product.

PV-13-50

50 mm x 33 m (2" x 108')

### **Omega Resin Feed**

A PVC  $\overline{\text{O}}$  mega profile channel with a 16 mm i/d interface. It can be used up to 60°C (140°F).

PV-64

16 mm x 2 m (.63" x 13')

#### Enka® Resin Feed

Enka infusion channel. Resin inlet 50 mm wide and 100 mm wide. Can be used up to 150°C (302°F).

PV-66-50

50 mm x 100 m (2" x 328')

PV-66-100

100 mm x 100 m (4" x 328')

### **Elevated Resin Feed**

A steel spiral resin feed wrapped in PRO-VAC Low-Flow Infusion Mesh (PV-53). This allows the resin feed to be elevated above the part when under vacuum, to prevent part imperfections caused by resin feed lines. Can be used up to 120°C (250°F).

PV-68-40

12.2 m (40')

PV-68-50

15.2 m (50')

### **Spiral Hose**

PE spiral wrap with 1 mm (.039") thickness. Available in 10 mm and 12 mm i/d. Maximum use temperature of 100°C (212°F).

PV-61-10

10 mm x 100 m (.39" x 328')

PV-61-12

12 mm x 100 m (.47" x 328')

### **Distribution Hose**

PE hose for resin Infusion. Available in 10 mm and 12 mm i/d. Maximum use temperature of  $100^{\circ}$ C ( $212^{\circ}$ F).

PV-63-10

10 mm x 100 m (.39" x 328')

PV-63-12

12 mm x 100 m (.47" x 328')

### **Infusion Valve**

PE double 0-ring infusion valve. Available in 10 mm, 12 mm and 18 mm o/d. Maximum use temperature of 100°C (212°F).

PV-70-10 PV-70-12 10 mm (.39") 12 mm (.47")

PV-70-18

18 mm (.71")

### **Resin Inlet**

Infusion inlet block, 16 mm diameter. Self seals with PRO-VAC Resin Inlet Connector (PV-73) and PRO-VAC Omega Resin Feed (PV-64). Can be used up to 100°C (212°F).

PV-72-16

16 mm (.63")

#### **Resin Inlet Connector**

PE, elbow connector for inlet block. Reducer to 12 mm o/d and expander to 18 mm o/d. Can be used up to  $100^{\circ}$ C ( $212^{\circ}$ F).

PV-73-12

12 mm (.47")

PV-73-18

18 mm (.71")

#### "T" Connector

PE, "T" connectors for resin infusion. Available in 10 mm, 12 mm and 18 mm o/d. Can be used up to  $100^{\circ}$ C ( $212^{\circ}$ F).

PV-76-10

10 mm (.39")

PV-76-12 PV-76-18 12 mm (.47") 18 mm (.71")

# "L" Connector

PE, "L" connectors for resin infusion. Available in 10 mm. Can be used up to  $100^{\circ}\text{C}$  (212°F).

PV-77-10

10 mm (.39")

Pre-production trials are recommended to confirm suitability of PRO-VAC Vacuum Consumables with your unique laminate schedules and processes.