

## DATA SHEET

### RESIN BLEEDER 3000A

HAWKEYE RESIN BLEEDER 3000A is a stretchable polyester fiber that has excellent drapability which enables it to conform tightly to the contours of your part. The lightweight and low-density construction allows for maximum resin bleed-out. In addition to being a bleeder, this material has the capacity to “vent” excess solvents, thus allowing excellent air flow as a breather.

Resin Bleeder 3000A is also supplied in a fire retardant form. Please specify “FR” if you require fire- retardancy.

#### SPECIFICATIONS

Temperature:	Recommended max. use: 400° F (205° C)
Melt Point:	<b>482° F (250° C)</b>
Weight:	4.4 oz per sq. yard
Thickness:	.021”
Dimensions:	60” X 100 yards per roll

**NOTE: This material is NOT a release material**

NOTE: Technical information furnished by HAWKEYE is based on laboratory findings and believed to be correct. No warranties of any kind are made except that materials supplied are HAWKEYE standard quality. All risk and liability arising from handling, storage and use of HAWKEYE products, as well as compliance with applicable legal restrictions rests with the buyer.

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# RESIN BLEEDER 3000AFR

HAWKEYE RESIN BLEEDER 3000AFR is the same product as the RB3000A with the exception that fire retardant fibers are used in the construction. RB3000AFR is a stretchable Polyester fiber that has excellent drapability which enables it to conform tightly to the contours of your part. The lightweight and low-density construction allows for maximum resin bleed-out. In addition to being a bleeder, this material has the capacity to “vent” excess solvents, thus allowing excellent air flow as a breather.

Resin Bleeder 3000A is also supplied in a fire retardant form. Please specify “FR” if you require fire- retardancy.

## SPECIFICATIONS

Temperature:	Recommended max. use: 400° F (205° C)
<b>Melt Point:</b>	<b>482° F (250° C)</b>
Weight:	4.4 oz per sq. yard
Thickness:	.021”
Dimensions:	60” X 100 yards per roll

**NOTE: This material is NOT a release material**

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### **RESIN BLEEDER 3000-7**

RESIN BLEEDER 3000-7 is similar in construction to the Hawkeye Resin Bleeder 3000A. The material is a stretchable polyester fiber with excellent drapeability and resin absorption.

RESIN BLEEDER 3000-7 is designed specifically to fill the need for material between Resin Bleeder 3000A and 3000-10.

RESIN BLEEDER 3000-7 is available in fire retardant form. Please specify Resin Bleeder 3000-7FR if required.

### **SPECIFICATIONS**

Temperature:	Recommended Maximum use 400° F (205° C)
Melt Point:	482° F (250° C)
Weight:	7 oz per sq. yard
Thickness:	1/4" (.635cm)
Standard Dimensions:	60" X 50 yards per roll

**This product is NOT a Release Material**

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### RESIN BLEEDER 3000-10

HAWKEYE RESIN BLEEDER 3000-10 is similar to our Resin Bleeder 3000A, in that it performs as an excellent bleeder or breather material. It is constructed of stretchable polyester fibers with good multi-directional stretchability. This product is constructed of a much higher density than our other bleeder materials, therefore allowing for a far greater resin bleedout without restricting its ability to conform tightly to the contours of your part.

Resin Bleeder 3000-10 is also supplied in fire retardant formulation. **Please specify "FR" if you require fire retardant material.**

#### SPECIFICATIONS

Temperature:	Recommended maximum use 400° F (205° C)
Melt Point:	482° F (250° C)
Weight:	10.0 oz per sq. yard
Thickness:	.188"
Dimensions:	60" X 50 yards per roll

**NOTE: This product is NOT a release material**

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### RESIN BLEEDER 3000-10B

HAWKEYE RESIN BLEEDER 3000-10B is similar to our Resin Bleeder 3000-10, in that it performs as an excellent bleeder or breather material. It is constructed of stretchable fibers with a good multi-directional blend of 80% polyester and 20% nylon. This product is constructed of a higher density than our other bleeder materials, therefore allowing for a far greater resin bleed-out without restricting its ability to conform tightly to the contours of your part.

## SPECIFICATIONS

Temperature:	Recommended maximum use 400° F (205° C)
Melt Point:	482° F (250° C)
Use Pressure:	100 PSI (7.2 baars)
Weight:	10.0 oz per sq. yard
Thickness:	.095"
Width:	60" Wide (1.52mm Width) Standard
Color:	White

#### NOTE:

**This product is NOT a release material.**

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# RESIN BLEEDER 3000-10S

RESIN BLEEDER 3000-10S is an advanced version of the Resin Bleeder 3000-10. It is produced with a coarser polyester fiber than the standard material to provide improvement in the airflow at high temperatures and high pressure. Resin Bleeder 3000-10S will allow 3000cc of airflow per minute at 400 degrees F (205 degrees C).

## SPECIFICATIONS

Maximum Use Temperature:	400° F (205° C)
Melt Point:	482° F (250° C)
Standard Roll Size:	60" wide X 50 yard
Weight:	10 oz. per sq. yard
Thickness:	3/8" (.95cm)

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## DATA SHEET

### RESIN BLEEDER 3000-20

RESIN BLEEDER 3000-20 is similar to our Resin Bleeder 3000-10. Resin Bleeder 3000-20 performs as an excellent bleeder or breather material. It is constructed of stretchable polyester fibers with good multi-directional stretchability. This material is constructed of a much higher density than other bleeder materials, therefore allowing for a far greater resin bleedout with restriction of conformability. Resin Bleeder 3000-20 is ideal for hydroclave layups. Three layers of Resin Bleeder 300-20 will conduct air in excess of 1000 PSI. Resin Bleeder 3000-20 is available to widths of 120"

Resin Bleeder 3000-20 is also supplied in a fire retardant form. Please specify "FR" if you require fire retardancy.

## SPECIFICATIONS

Temperature:	400° F (205° C)
Melt Point:	482° F (250° C)
Thickness:	.375" (approx.)
Width:	60" - Standard
Roll Length:	25 yards - Standard

### This is NOT a release material

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## DATA SHEET

### HT1306 HIGH TEMPERATURE BREATHER

Hawkeye non-woven nylon breathers are naturally fire retardant breathers used where porosity problems have occurred in applications using polyester breathers. Nylon breathers will not compress as will polyester which allows for increased airflow. This reduces porosity problems and back pressure in the laminate.

HT1306 is a 6 oz per square yard (204g) nylon breather. It is soft and conformable and is less expensive to use when two or more layers of polyester breather are required. HT1306 can replace any 10 oz polyester breather.

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## DATA SHEET

### HT1310 HIGH TEMPERATURE BREATHER

Hawkeye non-woven nylon breathers are naturally fire retardant breathers used where porosity problems have occurred in applications using polyester breathers. Nylon breathers will not compress as will polyester which allows for increased airflow. This reduces porosity problems and back pressure in the laminate.

The HT1310 is the most reliable breather for autoclave conditions. Weighing 10 oz per square yard (283.5 g), it is our medium weight nylon breather. The HT1310 is designed to increase airflow to the maximum, reducing re-work to the laminates.

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# **HAWKEYE**

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## **DATA SHEET**

### **HT1313 HIGH TEMPERATURE BREATHER**

Hawkeye non-woven nylon breathers are naturally fire retardant breathers used where porosity problems have occurred in applications using polyester breathers. Nylon breathers will not compress as will polyester which allows for increased airflow. This reduces porosity problems and back pressure in the laminate.

The HT1313 is the most reliable breather for autoclave conditions. Weighing 13 oz per square yard (441 g), it is our thickest nylon breather. The Ht1313 is designed to increase airflow to the maximum, reducing re-work to the laminates.

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### AIRVENT 4000

AIRVENT 4000 is a continuous filament sheet product composed of high tensile random synthetic fibers. It combines tear strength, porosity and good dimensional stability (to approximately 400° F - 204° C) to provide a lightweight breather or vent cloth to insure escape of air and volatiles. This enables equal pressure to be brought upon the full surface of your laminate, as vacuum pressure is brought to bear.

Depending on your own application or techniques, we recommend the use of any of the Hawkeye Release Materials with this product.

### SPECIFICATION

Temperature:	400° F (204 degrees C) Max.
Weight:	2.15 oz. per sq. yard
Thickness:	.013"
Widths:	45", 52" and 58"
Roll Size:	250 yards per roll

### This is NOT a Release Material

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## **DATA SHEET**

### **AIRVENT 4100B**

AIRVENT 4100B is a fabric produced from synthetic fibers combining a medium tensile strength with excellent elongation. As a bleeder or vent fabric, it possesses unusual bulk, wickability and porosity. AIRVENT 4100B is excellent for cures up to 350° F and pressures to 30 psi. As AIRVENT 4100B is not a release fabric, we suggest usage in conjunction with one of the high-quality Hawkeye Release Fabrics or Films.

#### **SPECIFICATIONS**

TEMPERATURE:	Recommended Maximum Uses - 350° F
WEIGHT:	1.7 oz per sq. yard
THICKNESS:	.013"
DIMENSIONS:	45" & 60" Wide X 250 Yds per roll
	Other sizes available on special request

**This is NOT a Release Material**

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### AIRVENT 4200A

AIRVENT 4200A material is a synthetic bleeder or “vent” fabric. It’s “waffle” construction offers open areas resulting in good “wick-ability”, unusual dimensional stability and formability.

AIRVENT 4200A is an economical material recommended for one heat cure. Operational to approximately 350 degrees F (177 degrees C), it is recommended up to 30 psi, particularly where burlap or osnaberg has been used to avoid the possibility of burning. It is also a suitable replacement for fiberglass in many instances. AIRVENT 4200A is NOT a release fabric and therefore should be used in conjunction with a release material. We recommend the Hawkeye Release Fabrics or the Perforated Release Films.

## SPECIFICATIONS

Temperature:	350° F (176° C)
Weight:	approx. 2.0 oz per sq. yard
Thickness:	.016”
Width:	Maximum width: 64”
Roll Size	250 yards per roll
Dry MD Grab	26.0 target (14.0 minimum)
Dry CD Grab	7.9 target (5.5 minimum)
Wet CD Grab	5.6 target (3.2 minimum)
MD Tear:	120 grams
MD Softness:	115 grams
Mullen Burst	40 lbs

Can be slit on request

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## DATA SHEET

### AIRVENT 4300A

AIRVENT 4300A is a synthetic bleeder or “vent” fabric. The construction of Airvent 4300A offers open areas resulting in excellent air-flow, unusual dimensional stability and excellent formability.

AIRVENT 4300A is recommended for one heat cure cycles and is operational to 400°F (204°C).

ARIVENT 4300A is not a release fabric and therefore should be used in conjunction with a release material.

#### SPECIFICATIONS

Temperature:	400° F (204°C)
Weight:	approx. 2.4 oz per sq yard
Thickness	.021”
Width	118” Maximum
Roll Length:	250 yds
Tensile Strength	84.10 MD – 16.97SD
Elongation(%)	22.58MD – 127.26CD

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### HK781 HIGH PRESSURE BREATHER

HK781 BREATHER is a non-woven material used in composite shop applications where high pressure and temperature is necessary. The custom manufacturing of the breather ensures even air flow throughout the layup allowing up to two times the pressure that polyester and nylon non-woven material will withstand.

#### SPECIFICATION

Width:	To 96"
Thickness:	.009"
Weight:	9-10 oz/sq. yard
Length:	250 yards per roll - Standard]
Temperature:	1200 degrees F (650 degrees C)

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