



www.hipexgroup.com



## **ABOUT US**



Hipex Composite Pvt Ltd offers cutting-edge vacuum bagging consumable goods, solutions, and services for the wind energy, maritime, and many other sectors. We are one of the leading manufacturing of vacuum begging consumable material in Ahmedabad, Gujarat, Our key production items are: Vacuum bagging films, release films, peel plies, sealant tapes, infusion mesh, breather cloth, Honeycom bcore, resin infusion items and With the aid of highly qualified workers, we provide wind turbine blade manufacturers with a comprehensive range of blade repairing, painting, and retrofit services.

Our Business focus areas include aerospace, wind turbine, marine, automotive, solar energy and general FRP composites. About 15 years of experience in the composite industry Hipex composite Pvt Ltd can rely on global expertise and can produce high standard quality products for customers requiring the highest quality.



#### **VISION**

- We believe that supplying cutting-edge Products with the highest quality standards in a timely and sustainable manner will be essential to achieving the goal.
- To introduce environment / customer friendly products, thereby facilitating improvement in the life of people
- We believe that brilliance is found in the smaller details. As a consequence, we focus on everyday excellence to give our customers a unique value by offering the best products that are also environmentally friendly and top-notch customer service..

#### **MISSION**

- We'll maintain our position at the top of our business by being dedicated, ethical, and innovative..
- Create a synergistic balance between the marketplace and our capabilities.
- Manufacturing effective and robust products bench-marked according to global standards.
- Delivering on our promises to customers and try to exceed their expectations





# **VACUUM BEGGING FILM**



Vacuum bagging film mostly used in composite industries. It is used to cover the whole mould surface, including all consumable materials for vacuum-sealing laminates. For meeting product quality parameters, vacuum bagging film is mostly utilised in hand lamination and VARTM (Vacuum Assisted Resin Transfer Molding). High elongation, high temperature nylon film appropriate for cure temperatures up to 410°F (210°C). We provide a broad selection of bagging film products with labor-saving features including welded wide format or custom forms.

Hipex Composite Pvt Ltd's collection of high-performance vacuum bagging films ensures precision, excellence, and effectiveness. Our bagging films are offered as designed kits or roll stock.

# **Technical specification**

## Technical Specification Vacuum Begging film as per standards ASTM D 882

### **Properties**

Material Composition
Color
Elongation at Break
Tensile Strength
Maximum use temperature
Shelf Life
Packing

## **Specification**

Nylon Yellow, Green, Blue, Red 400% >45 Mpa 410°F (210°C)

Unlimited at room temperature in original packing Wrapping by air bubble roll on film and packaged into cardboard outer tube.

## Size:

Thickness	Properties	Forms Available*
0.0021 inch (55 μm)	up to 354 inches (9.00 m)	CF,SHT,LFT
0.0025 inch (65 μm)	up to 354 inches (9.00 m)	CF,SHT,LFT
0.003 inch (75 μm)	up to 354 inches (9.00 m)	CF,SHT,LFT
0.0033 inch (85 μm)	up to 354 inches (9.00 m)	CF,SHT,LFT

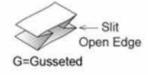
\*Custom size, thickness and length are available as per customer requirement. Please contact us for more information











- Storage at room temperature and Low moisture level.
- Avoid using sharp objects while handling the film, keep fingernails cut when holding it, and clean the mould surface before applying it.
- Do not open the cardboard case until its application



# PERFORATED RELEASE FILM



Perforated release film basically used for removing helping material which are utilized in vacuum bagging technique. We are leading manufacturer of perforated release ahmedabad, Gujarat, india. Release films is place over the laminate and disunite the laminate from cloth which has no relinquishment breather characteristics. Release films are often perforated in order to ascertain that any trapped air, volatiles or excess resin, which may compromise the physical properties of the laminate, can be abstracted. A variety of film alternatives with different perforation patterns are available to meet the different requirements for cure temperatures, thicknesses, tensile strengths, adhesion, and higher service temperatures.

# **Technical specification**

## Technical Specification Vacuum Begging film as per standards ASTM D 882

#### **Properties**

Material Composition
Color
Elongation at Break
Tensile Strength
Maximum use temperature
Shelf Life
Packing

## **Specification**

High density polyethylene Light Blue, Pink 380% >45 Mpa 125°C to 130°C

Unlimited at room temperature in original packing Wrapping by air bubble roll on film and packaged into cardboard outer tube.

## Size:

Thickness	Properties	Forms Available*
0.0006 inch (15 μm)	up to 48 inches (1.22 m)	SHT
0.001 inch (25 μm)	up to 60 inches (1.5 m)	SHT,CF
0.002 inch (50 μm)	up to 60 inches (1.5 m)	SHT,CF

<sup>\*</sup> Available in customized sizes and packaging based on customer needs. Contact us if you'd like further details.



CF=Centerfold

- Storage at room temperature and Low moisture level.
- Due to film perforation, overlap shouldn't be greater than 20 mm.



# **SEALANT TAPE - HIGH TEMPERATURE**



High temperature sealant tapes are basically used wind blade and aerospace manufacturing industries. Sealant is an economical vacuum bag sealant tape formulated from a coalescence of synthetic rubbers primarily developed to be utilized in wind turbine blade layups. It has excellent adhesion to a variety of films and mold surfaces, as well as good release/clean up from tooling post-curing.

## **Feature**

- Excellent adhesion to various films and tool surfaces.
- Strips easily & cleanly from tool surface after cure cycle
- Non-Hazardous (User friendly) and Thermally Stable.
- It is use in metal and composite industries.

# **Technical specification**

#### **Properties**

**Material Composition** 

Color

Elongation at Break

Maximum use temperature

**Shelf Life** 

**Storage Condition** 

#### **Specification**

Synthetic Butyl rubber

Yellow

400%

410°F (210°C)

12 month from date of Manufacturing

Must be stored on flat surface in original packing

at room temperature

## Size:

#### **Dimension**

#### **Packing**

1/8 inch x 1/2 inch x 10 mtr (3 mm x 12 mm x 10 mtr) 32 rolls per case

1/8 inch x 1/2 inch x 16 mtr (3 mm x 12 mm x 16 mtr)

20 rolls per case

Available in customized sizes and packaging based on customer needs. Contact us if you'd like further details.

- For clean removal, it is recommended to strip the tape from the tooling/mold surface once it has cooled down to room temperature.
- Mold surface must be clean, dry & free from dust & oil etc before application of sealant tape.
- Should be avoiding from the moisture, direct sunlight and water.



# **SEALANT TAPE - LOW TEMPERATURE**



Low temperature sealant tape ideally utilized in vacuum bagging technique for making small component of composite product where temperature does not exceed up to 300°F (150°C). It has high cohesive Strength and sealing capability, as well as adhesion to a variety of films and tooling surfaces. It is compatible with a wide variety of film types and implements surfaces of aluminum, steel, fiberglass, nickel and graphite etc.

# **Technical specification**

## **Properties**

Material Composition Color Elongation at Break Maximum use temperature Non Volatile Contents Shelf Life Storage Condition

## **Specification**

Synthetic Butyl rubber
Black
400%
300°F (150°C)
99.8 % At 100°C for 3 hours
2 Month from date of Manufacturing
Must be stored between -25°C to 40°C and away
From heat, water, moisture & direct Sun light.

## Size:

#### **Dimension**

1/8 inch x 1/2 inch x 10 mtr (3 mm x 12 mm x 10 mtr)

1/8 inch x 1/2 inch x 16 mtr (3 mm x 12 mm x 16 mtr)

#### **Packing**

32 rolls per case

20 rolls per case

Available in customized sizes and packaging based on customer needs. Contact us if you'd like further details.

- It is advised to remove the tape from the tooling or mould surface once it has cooled to room temperature for a clean removal.
- Before applying sealant tape, the mould surface has to be clean, dry, and clear of debris, oil, and other substances..
- Water, moisture, and direct sunshine should all be avoided.



## **PEEL PLY**



Peel ply is a nylon fabric with a simple weave that has a red and black polyester tracer.. Peel plys are generally integrated after all fabric layers have been laid up and secondary to obtain the composite laminates' overall surface finish or positioned in the main areas of secondary bonding. The vacuum bagging procedure uses Nylon Peel Ply, a high temperature, heat-set, and scoured nylon fabric. When a textured surface is required, it is the excellent release material to use directly against the laminate. Rinsing and heat treatment are used to remove any surface impurities from nylon peel-ply. Peel ply textiles offer a smooth surface with excellent adherence since they can be readily peeled off after being cured.

# **Technical specification**

## **Properties**

Fabric type
Color
Tracer Yarn
Maximum use temperature
Weight (g/m²)
Thickness
Shelf Life

## Specification

Nylon White Red, Black 400°F (205°C). 85 and 105 0.006 inch (0.15 mm) Unlimited at room temperature in original packing

## Size:

Thickness	Properties	Forms Available*
40 inch (1 mtr)	110 yard (100 mtr)	1 roll
60 inch (1.5 mtr)	218 yard (200 mtr)	1 roll

<sup>\*</sup>Available in customized sizes and packaging based on customer needs. Contact us if you'd like further details.

- The Hipex Composite Pvt Ltd advises testing before use because the maximum usage temperature depends on the time spent at the maximum temperature and is process-specific.
- On request, hot knife (sealed edge) slitting is available with a minimum order quantity of 1 roll.
- Not recommended to for use against phenolic resin.



# **VACUUM INFUSION FLOW MEDIA**



In the advanced composites industries, a polymer infusion mesh with a diamond aperture is employed. To ensure that resin flows evenly across the whole surface of the mould, it is set flat on surface of mold. Infusion mesh makes a space between the vacuum film and glass fabric laminate so that the vacuum pump may draw air into the laminate. It is often used in green color to improve the visually clarity of the resin's flow across the surface of the mould. After composite laminate cured it is removed from the laminate.

# **Technical specification**

### **Properties**

Material Composition Color Tracer Yarn Maximum use temperature Weight (g/m²) Melting temperature Shelf Life

## **Specification**

High-Density Polyethylene - HDPE
Green
Red, Black
302°F (150°C)
150 To 250
260 °F (127 °C)
Unlimited at room temperature in original packing

## Size:

Width	Length	*Packing
47 inch (1.2 mtr)	55 yard (50 mtr)	1 roll
60 inch (1.5 mtr)	55 yard (50 mtr)	1 roll

<sup>\*</sup>Available in customized sizes and packaging based on customer needs. Contact us if you'd like further details.

- The Hipex Composite Pvt Ltd advises testing before use because the maximum usage temperature depends on the time spent at the maximum temperature and is process-specific.
- Make sure the infusion mesh must be placed on peelply or release film. Don't place on the direct to the laminate.



# **BREATHER FABRICS**



Breather cloth, often referred to as breather fabric or bleeder, is a non-woven polyester material used in a number of vacuum bagging applications, such as the vacuum bagging of wet-lay laminates and VARTM (Vacuum Assisted Resin Transfer Molding). The purpose of the breather cloth was to draw air from the laminate and from between two vacuum bagging films and suck it into the mold's vacuum hose. The elongation drape-ability and high stretch qualities of this cloth are exceptional. These materials' high stretch and absorbent properties reduce bridging on intricately curved surfaces.

# **Technical specification**

### **Properties**

Material Type
Color
Weight (g/m²)
Maximum use temperature
Air permeability(cm³/cm²/sec)
at 5mm WH
Elongation at break
Shelf Life

## **Specification**

Polyester White 130, 150 428°F (220°C)

150 to 250 above 80%

Unlimited at room temperature in original packing

#### Size:

Width	Length	*Packing
4 inch (100 MM)	110 yard (100 mtr)	1 roll
6 inch (150 mtr)	110 yard (100 mtr)	1 roll
40 inch (1.0 mtr)	110 yard (100 mtr)	1 roll
60 inch (1.0 mtr)	110 yard (100 mtr)	1 roll

<sup>\*</sup>Available in customized sizes and packaging based on customer needs. Contact us if you'd like further details.

## Packing:

Wrapping by plastic film on breather roll to provide sufficient protection and packaged in Polypropylene Bags



# **HONEYCOMB CORE**



Aerospace grade Non-metallic honeycombs are made by forming aramid paper, which is high temperature resistant, into a honeycomb shape and coating it with phenolic resin.

Hipex honeycomb is especially suitable as a core material for production of sandwich structures requiring significant FST performance and using high performance fiber reinforced composites as the facing material. It is designed to offer users and designers high strength-to-weight properties at relatively low cost.

# **Application**

- uses for sandwich panels
- Variable densities for aircraft flooring according on level of duty
- Leading and trailing edges of an aircraft
- Interiors of aircraft, such as sidewalls, galleys, and ceilings, as well as VIP, business, and commercial interiors
- Helicopter rotor blades
- Fuselage elements and Cargo lining

# **Technical Specification:**

	Densit	Stabilized Compression		Plate Shear			
*Product	y (kg/m³)	Strength (MPa)	Modulus (MPa)	Strength "L Direction" (MPa)	Modulus "L Direction" (MPa)	Strength "W Direction" (MPa)	Modulus "W Direction" (MPa)
AH-3.2-29	29	0.90	60	0.5	25	0.31	17
AH-3.2-48	48	2.3	138	1.25	40	0.73	25
AH-3.2-64	64	3.9	190	2	63	1	35
AH-4.8-48 (OX)	48	2.7	120	0.8	20	0.85	35

## **Product Designation:**

AH: Aerospace honeycomb, 3.2: Cell size in Millimeter, 29: Density, OX: Over expanded

\*Available in customized sizes and packaging based on customer needs. Contact us. if you'd like further details.



# Size:

Thickness	Width	Length	
2 MM To 100 MM	600MM, 1200 MM	2400 MM, 2500 MM	

- When handling fine fibrous materials, standard safety procedures should be followed.
- The use of clean, disposable inert gloves protects the user and prevents material and component contamination.
- All information is provided without warranty but with the assumption of accuracy. Users should decide for themselves whether a product is appropriate for their needs.



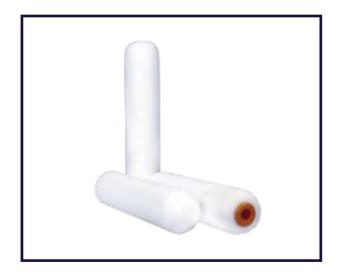
# **PAINT AND OTHER ACCESSORIES:**

# **EXTENSION POLE**



It is a lightweight, extensible pole made of aluminum that is simple to adapt to fit any need. It is used to reach high places where paint has to be applied. It comes in a variety of lengths.

# **PAINT FOAM ROLLER**



A high density polyester foam roller is utilized for epoxy paint's smooth finishing, particularly in wind mill blade manufacturing. It is available in sizes ranging from 50 mm to 200 mm, density of 30 to 60 kg/m3 and has a round surface on one side.



# **WOOSTER ROLLER**



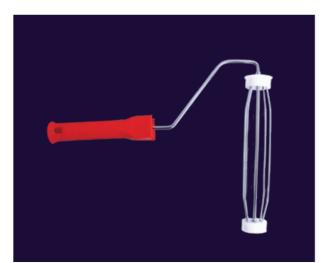
Wooster roller offer outstanding paint absorption capabilities, which aid in providing the surface with a flawless finish. They are constructed of numerous textiles of varying types, sizes, and

# **FUR ROLLER**



Our roller with numerous applications in the composites industry. It may be used to apply paint and resin on glass fabrics in order to correctly achieve glass resin ratio.

# **ROLLER HANDLE**



Our uniquely crafted roller handle for the composites industry has great strength and a lock system on one side that has captured the roller without play during application. It is available in a variety of sizes.

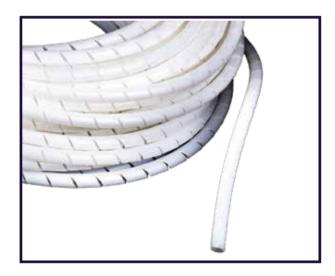


# **PAINT PLASTIC TRAY**



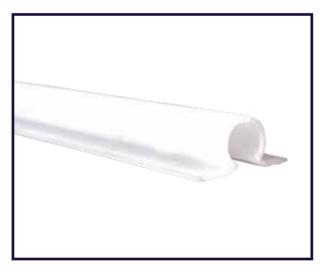
In a specially made plastic paint tray, extra paint is removed once a roller has been properly wetted, avoiding paint waste during application.

# **SPRIAL TUBE**



A spiral tube is an extruded plastic component that is frequently used to distribute resin evenly over a laminate or component during the infusion process. Resin may be supplied all the way along a composite edge because it flows readily through the middle of the spiral-finned tube and equally as easily out of the spirals on the side.

# **OMEGA PROFILE**



The thermoplastic Omega Profile, which is affordable and has high strength and offers rigidity, chemical resistance, and fatigue resistance. It used for resin flow into entire mold. It is situated in the middle of the laminate and above the vacuum bagging helping materials.

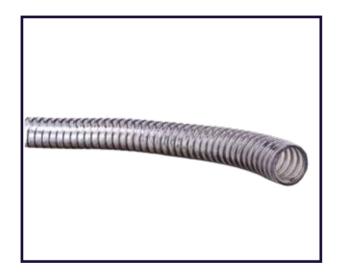


# **STEEL BRAIDED HOSE PIPE**



This hose has specific steel wire reinforcement built into the flexible PVC tubing wall which is utilized for high pressure and vacuum applications. this hose has a mirror-like transparency and smooth surfaces, which offer excellent visual flow characteristics and make it simple to spot obstructions and air locks. It is available in a variety of sizes

# **NYLON BRAIDED HOSE**



Polyvinyl chloride high-quality is thermoplastic compound thermoplastic with properties. It is reinforced with a braid of high-tenacity nylon filament yarn sandwiched between two layers of pvc and bonded together to create a homogeneous hose. It is used for resin distribution from the resin machin to the main mold line. Additionally, it is employed for air, pneumatic, water gas, insecticide, and gardening purposes. Hipex Recommended Working Temperature Range Between -10°C to 60°C.

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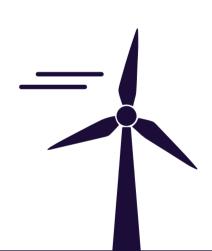






# We are Global Advance Vacuum Bagging Material Supplier







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