TACONIC®

• Tapes • Fabrics • Belts

Aerospace

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Composites

PTFE coated fiberglass tapes and fabrics act as a cost-effective release surface for hand lay-up and open mold composites. During the hand lay-up process, PTFE coated fabric acts as a flexible release liner that conforms to the mold while its nonstick coating allows clean removal from the molded composite part. In open mold processing, the mold or tool is lined with PTFE coated tape which provides an advantage over fabric for complex shapes in that it is conformable and will stay firmly in place. Once the PTFE lined mold is filled with resin and composite material, curing occurs and the PTFE tape releases cleanly from the tooling. In most applications, composite parts should be vacuum bagged in/on the mold to prevent pre-release of the part from the mold.

Advantages:

- Optimal release
- Provides ultra smooth finished surface
- Reduces prep time, finish work & clean-up
- Eliminates need for waxes & chemical cleaners
- Temperature resistant to 500°F/260°C
- Abrasion resistant
- Flexible/conformable
- Can be gel coated
- May perform for multiple pulls

Product Number	Overall Thickness (in)	Adhesive Thickness (inches)	Adhesive Type	Adhesive Strength (ozs)	Operating Temp Min/Max °F	Application
6085-03	0.005	0.002	Silicone	40	-100/500	Mold release tape
6085-05	0.007	0.002	Silicone	45	-100/500	Mold release tape
6085-06	0.008	0.002	Silicone	50	-100/500	Mold release tape
6095-03	0.005	0.002	Silicone	40	-100/500	Mold release tape
6095-05	0.007	0.002	Silicone	50	-100/500	Mold release tape
6095-06	0.008	0.002	Silicone	50	-100/500	Mold release tape
6445-02	0.004	0.002	Silicone	25	-100/500	Mold release tape
7025	0.0025	N/A	N/A	N/A	-100/500	Bleeder cloth and peel-ply
7038	0.0028	N/A	N/A	N/A	-100/500	Release Fabric

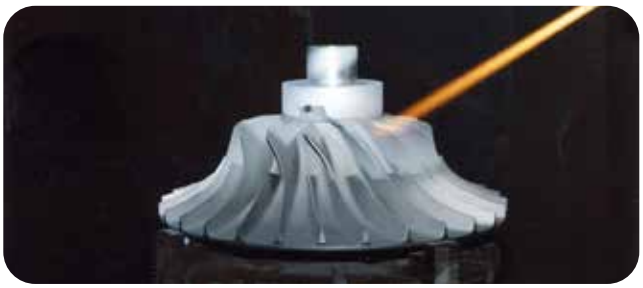
The data herein are averages based on the authoritative testing of several lot numbers. This information is intended for comparison purposes only.

Thermal Spray Masking

Taconic is a world-class manufacturer of PTFE and silicone coated fabrics including high performance thermal spray masking tapes, fabrics, and compounds. The full range of masking materials are designed to produce time and cost savings.

We are committed to active research and development to create maskants that resist higher heat and higher abrasion. Taconic's global presence allow us to respond accurately and quickly to challenging masking applications with customized solutions.

Based on our experience, we developed a range of products suitable to be used in the following thermal spray coating processes:



- Abrasive Blasting
- Combustion Flame Spray
- Electric Arc Spray
- Plasma Spray
- HVOF

Main Industries Served:

- Aviation/Aerospace
- Gas Turbines
- Alternative Energies
- Automotive
- Biomedical
- Semiconductor/Parts Cleaning

Primary Mask ● **Secondary Mask** ●

	6605-07	6615-07	6615-12	6625-07	6625-09	6625-11	6525-08	6525-08 RD	6525-16	6725-15	7102W	7322W	7422W	Compounds
Abrasive Blasting	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Shot Peening	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Electric Arc Spray	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Combustion Flame Spray	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Air Plasma Spray	●	●	●	●	●	●	●	●	●	●		●	●	●
Gaseous Fuel HVOF							●	●	●	●			●	●
Liquid Fuel HVOF									●	●				●
HVAF									●	●				●
Suspension Plasma Spray														●
High Energy Plasma Spray														●

Taconic PSA Tapes

- 6525-08: All purpose masking tape.
- 6525-08 RD: Premium all purpose masking tape.
- 6525-16: Double Layered Plasma Spray masking tape.
- 6605-07: Single sided glass cloth tape.
- 6615-07: Double sided glass cloth tape.
- 6615-12: Heavy duty double sided glass cloth tape.
- 6625-07: Aluminum foil flame spray masking tape.
- 6625-09: Aluminum foil flame spray masking tape.
- 6625-11: Heavy duty aluminum foil tape.
- 6725-15: Abrasive resistant glass/foil tape.

Taconic Coated Fabrics

- 7102W: 10 mil white silicone fabric
- 7322W: 32 mil white silicone fabric
- 7422W: 42 mil white silicone fabric

Masking Compounds

- ***TacMold*** (A2023-A / A2023-B) masking compound is a 2 part silicone putty which is designed to withstand all forms of thermal spray including GF-HVOF and LF-HVOF. This putty is intended to assist with masking holes or complicated intricate profiles. In some cases, the compound is reusable.

- ***TacBloc*** - A soft, conformable, putty-like material for masking holes, grooves, key slots or any unique configuration. Unlike TacMold, TacBloc is formulated to adhere to metal in areas where anchorage is not possible. TacBloc is good for all forms of thermal spray.

Characteristics:

- High Abrasion Resistance
- Great flexibility and conformability
- Contamination free surface
- Peel adhesion
- Prevent bridging or cracking

Advantages:

- Reduce time
- Reduce tape consumption
- Reduce overall costs
- Improve throughput
- Eliminate rework

LEO Satellite

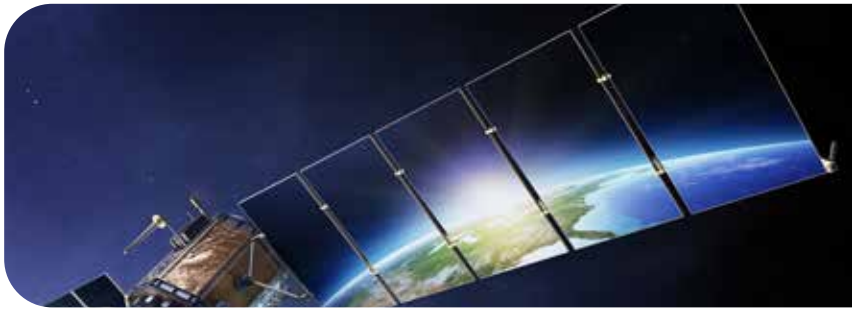
Taconic's PTFE coated fiberglass fabrics are durable, high performance, and well suited for satellite applications. Taconic has demonstrated it's ability to engineer and manufacture cost effective solutions for large scale LEO satellite constellation projects. Our PTFE fabrics can be produced in single-ply or multi-ply for enhanced strength, a variety of colors, and can be tailored to meet specific CTE or thermal conductivity requirements.

Taconic's PTFE fabrics can be found in:

Solar Array Structural Back Sheets

Taconic's PTFE fabrics can be engineered for your back sheet application.

- Bond surface(s); to solar cell encapsulant and composite layers
- These materials can be made conductive
- Bi-facial coating types available
- Thicknesses starting as low as 2 mils



Tension Straps

Taconic's PTFE fabrics can be precision C.N.C. cut and fabricated with mechanical fixturing (i.e. grommeting) or sewn using NASA recommended thread depending on your needs.

Fabrics for Radomes and Thermal Insulation

Taconic's Raycover PTFE coated glass fabric is offered as pre-cut radomes in diameters up to 15 ft (5m), while having minimal effect on antenna signal performance and protecting surfaces from harsh conditions.

Taconic's TefShield high performance PTFE insulation fabrics are designed to control heat gain and loss due to thermal or chemical exposure in a variety of applications. TefShield is suitable for LEO environments.

Wire Harness Insulation and Protection

Taconic offers a wide variety of PTFE coated and glass cloth tapes rated for use as a cable insulation layer or protection barrier of sensitive electronics. These materials are also in orbit in LEO space applications.

PTFE coated fiberglass tapes are low friction, weather and heat resistant, chemically inert, flame retardant, resist shrinkage, and can be developed with low outgassing properties. These features promote long-term durability in extreme, high vibration, environments.

Glass cloth tapes offer exceptional tear strength as well as high abrasion resistance and insulation properties. These tapes are often economically priced. Taconic's PTFE coated and glass cloth tapes can be custom tailored to meet your specific needs.

Features:

- Low friction
- Weather and wear resistant
- Chemically inert
- Flame retardant
- Resists shrinkage
- Low outgassing options

Decription	Part Number	Overall Thickness (inches)	Adhesive Thickness (inches)	Adhesive Type	Adhesive Strength (Typical)	Operating Temp Min/Max °F	Max Widths (inches)
Glass Cloth Tape	6603-07	0.007	0.002	Acrylic	35	-40/350	42
	6605-07D	0.007	0.002	Silicone	35	-100/500	42
	6605-07HT	0.007	0.002	Silicone	30	-100/500	42
	6615-07	0.007	0.003	Silicone	50	-100/500	38
	6605-10	0.009	0.004	Silicone	30	-100/500	42
	6615-10-D	0.011	0.004	Silicone	40	-100/500	38

Decription	Part Number	Overall Thickness (inches)	Adhesive Thickness (inches)	Adhesive Type	Adhesive Strength	Operating Temp Min/Max °F	Max Widths (inches)
Low Outgassing Tapes	6603-07-E595	0.007	0.002	Acrylic	35	-40/350	42
	6033-02E	0.00535	0.00235	Acrylic	77	-40/350	40

The data herein are averages based on the authoritative testing of several lot numbers. This information is intended for comparison purposes only.

Low outgassing tapes ASTM E-595 tested.

Self-Lubricating Bearing and Gasket Materials

TacBEAR self-lubricating PTFE bearing and bushing material is designed to provide a durable, low maintenance and cost effective alternative to its high-performance plastic counterpart.

TacBear's unique self-lubricating material is constructed by coating one side of an aramid fabric with PTFE. The uncoated side is then bonded to a steel (or other metal) surface. The smooth PTFE surface with its anti-static properties facilitates an easy sliding, friction-resistant bearing or bushing. Additionally, the fabric component improves resistance to cold flow allowing for higher loads.

Taconic can also fusion bond PTFE fabrics and films (filled or unfilled) to a variety of flat sheet stock. Bushings or bearings can then be formed from the flat sheet stock.

PTFE Gasket Material

Selecting the correct gasket material is a crucial first step in making sure its intended application performs at the highest level. The purpose of a gasket or seal is to help correct for a difference in surface shape or size of two components being brought together. No matter if the surface difference is large or small, a gasket or seal is needed to hinder the escape of gas or liquid through the surface irregularities.

Taconic's PTFE gasket material is chemical and temperature resistant and can be made with conductive properties or bondable surfaces.

Regardless of the size or shape of your applications surface irregularity, Taconic offers a PTFE gasket material to fit your application needs:

- PTFE Coated Fiberglass/Kevlar Fabrics
- Adhesive Coated PTFE Fiberglass Fabrics
- Fiberglass Reinforced PTFE Laminates
- Silicone Coated Fiberglass Fabrics

- PTFE Film Composites
- Hybrid Composites
- PTFE Laminated Metal Sheets

With facilities around the world, we've got you covered.

ISOQAR QUALITY ASSURED ISO 9001
Certificate Number 3083QMS001

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OVER 60 YEARS of innovation

Lester T. Russell, the acknowledged inventor of the process for applying PTFE to fiberglass fabric, founded Taconic in 1961.

The company produces advanced engineered composite materials for use in diverse markets. Taconic is dedicated to quality, innovation and environmental safety.

Our talented R & D, engineering and multi-lingual sales support network assures success in solving our customers' application challenges around the globe.

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TACONIC
Finding a better way