## Thermal Spray Masking Tapes | Fabrics | Compound

## High Tolerances for Extreme Environments

When masking high-value parts in preparation for the intense forces of thermal spray coating, you want to be sure that you are using materials that are designed and proven to stand up to the test. Finding out later that the tape surface was compromised, or the adhesive didn't hold will only leave you with costly and time consuming repair, or worse, scrap. As a proven and trusted leader in the innovation and production of high-quality thermal spray masking materials, Green Belting Industries provides masking materials that are engineered, tested*, and proven in spray shops around the world. Our experienced field reps and product specialists are committed to helping you find the best masking product for your application.

## Common masking applications



## Grit Blast

To effectively prepare the component for the thermal spray coating, sharp, angular media, such as aluminum oxide, is blasted at high pressure towards a target surface to remove unwanted coatings and to apply a desired (roughened) surface texture. Green Belting Industries masking materials, such as 170-10S Green are well suited to endure both the grit blast and spray coating processes, thus saving significant time and cost.


## Wire Arc Spray

The primary challenge associated with the Wire Arc Spray coating process is the wide spray plume that exits the gun. This results in the necessity of primary masking, close to the target zone, and secondary masking to protect large non-target areas from overspray and costly clean-up or re-work. While wire arc spray is not as abrasive as other spray processes, it still requires proper masking to ensure protection of the part and non-target surfaces.


## Flame Spray

Flame Spray coatings, (combustion coatings) are a very basic form of thermal spray coating. Because of the relatively low heat and abrasion, coatings are often applied with hand-held spray guns in an open shop setting rather than within a spray booth. Many Green Belting Industries masking materials are well-suited from this process. Masking strategies should contemplate materials that are capable of withstanding both the grit blast and flame spray coating process in order to save time and reduce cost.

## Plasma Spray

Extremely high temperature and high abrasion call for masking materials that must withstand these forces during expected 'dwell time' parameters. Masking materials, including tapes and compounds must remain in place, resist burning and edge lifting, and prevent unwanted overspray and/or damage to the part being sprayed. All Green Belting Industries Plasma Masking Materials are precision made with the highest quality Silicone, Fiberglass, Adhesives and Compounds to ensure optimum performance in this harsh setting. All are easy to work with, offer high flexibility and conformability, and can be removed cleanly and easily following the spray process, leaving no adhesive residue.

## RECOMMENDED PRODUCTS:

160 \& 262 Fiberglass Cloth Tapes
170-10S \& 20S YL, Green, Red
290-7S, 290-9S, 290-11S
310-16S Super Tough

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## HVOF

The high particle velocity of HVOF results in extremely high abrasion and a rapid transfer of heat through the masking materials. In order to mask effectively against HVOF, masking materials, including tapes, must be strong enough to withstand both the high abrasiveness and high heat. Green Belting ${ }^{\text {TM }}$ HVOF Tapes and HVMC (High Velocity Masking Compound) are proven performers that hold up exceptionally well against the HVOF spray while offering high conformability, and clean, residue-free removal.

## RECOMMENDED PRODUCTS:

## 290-11S

179-20S \& 25S
HVMT Orange
*Ongoing laboratory testing ensures that Green Belting Industries Thermal Spray Masking materials offer industry leading performance in measures of strength, resistance to extreme temperatures, resistance to abrasion, and adhesive performance (strength of adhesive on metal, face-to-back adhesion, and clean removal).

## Engineered Masking Solutions

| Product |  | Maximum Width |  |  | Nominal Thickness |  | Adhesion to Steel |  |  |  | Adhesion to Self |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (in) | (mm) |  | (mil) | (mm) |  | (oz/in,w) | ( $\mathrm{N} / \mathrm{cm}$ |  | (oz/in, |  | ( $\mathrm{N} / \mathrm{cm}, \mathrm{w}$ ) |
| Fiberglass Tapes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $160-5 \mathrm{SHT}$ |  | 48 | 1219 |  | 7.5 | 0.19 |  | 30 | 3.3 |  | 53 |  | 5.8 |
| 262-75 |  | 36 | 914 |  | 7 | 0.18 |  | 35 | 3.8 |  | 30+ |  | $3.8+$ |
| 162-12S |  | 36 | 914 |  | 11.5 | 0.29 |  | 30 | 3.3 |  | $30+$ |  | $3.8+$ |
| Silicone Coated Fiberglass Tapes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170-10S YL |  | 48 | 1219 |  | 11 | 0.28 |  | 40 | 4.4 |  | 30 |  | 3.3 |
| 170-10S Green |  | 48 | 1219 |  | 10.5 | 0.27 |  | 40 | 4.4 |  | 30 |  | 3.3 |
| 170-10S Red |  | 48 | 1219 |  | 11 | 0.28 |  | 40 | 4.4 |  | 30 |  | 3.3 |
| 310-16S |  | 48 | 1219 |  | 18 | 0.45 |  | 44 | 4.7 |  | 40 |  | 4.4 |
| HVMT Orange |  | 48 | 1219 |  | 20 | 0.51 |  | 35 | 3.8 |  | 30 |  | 3.3 |
| Multi-Layer Tapes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 170-20S YL |  | 18 | 457 |  | 20.5 | 0.52 |  | 30 | 3.3 |  | 25 |  | 2.7 |
| 170-20S Green |  | 18 | 457 |  | 20.5 | 0.52 |  | 40 | 4.4 |  | 30 |  | 3.3 |
| 179-20S |  | 13 | 330 |  | 20.5 | 0.52 |  | 30 | 3.3 |  | 20 |  | 2.2 |
| 179-25S |  | 13 | 330 |  | 25 | 0.64 |  | 25 | 2.7 |  | 20 |  | 2.2 |
| Aluminum Foil Tapes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 290-75 |  | 48 | 1219 |  | 5 | 0.12 |  | 79 | 8.5 |  | N/A |  | N/A |
| Product | Max Width |  |  |  | Nom. Wt |  |  | Break Strength |  |  |  | Max Op. Temp |  |
|  | (in) | (mm) | (mil) | (mm) |  | (oz/yd²) | $\left(\mathrm{g} / \mathrm{m}^{2}\right)$ |  | b/in,w) |  | cm,w) | ( ${ }^{\circ}$ ) | ( ${ }^{\circ} \mathrm{C}$ ) |
| Masking Fabric |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SW-35 | 38 | 965 | 35 | 0.89 |  | 33.4 | 1131 |  | 800 |  | 401 | 480 | 249 |
| Product | Shore Hardness |  | Tensile Strength |  | Elongation (\%) |  |  |  | Shrinkage (\%) |  |  | Max Op. Temp |  |
|  |  |  | (psi) | (kPa) |  |  |  |  |  |  |  | ( ${ }^{\circ}$ ) | ( ${ }^{\circ} \mathrm{C}$ ) |
| Masking Compound |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HVMC |  |  | 500 | 3448 |  | 350 |  |  |  | 0.1 |  | 500 | 260 |
| Product data is subject to change without notice. Contact your representative for more details. |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Improve efficiency with innovative masking solutions


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HVMC is highly effective for filling small holes, details, and for creating reusable plugs


An effective and reusable 'masking blanket' for secondary masking zones, SW-35 Fabric covers large surface areas, significantly reducing tape consumption and cost.


## 160 Fiberglass

Constructed with tightly woven high-tensile uncoated Glass cloth and Silicone Adhesive, this tape is ideal for Secondary Masking. It is highly conformable and leaves no adhesive residue upon removal.

## 262 Fiberglass

Ideal as an under wrap in demanding coating applications, this high temperature Fiberglass cloth tape has Silicone Adhesive on both sides. The tape removes cleanly after use and leaves no adhesive residue.

## 170-10S \& 20S YL

Our standard Thermal Spray Masking Tape withstands grit blast and thermal spray, and releases cleanly from metal surfaces. 170-20S YL offers double-layered protection for added strength and resilience.

## 170-10S \& 20S Green

Our most popular plasma tape for applications that involve higher abrasion. Produces clean edge lines. For more demanding jobs, 170-20S Green provides an extra layer of protection.

## 170-10S \& 20S Red

Well suited for Plasma Spray coating and applications involving higher temperatures. This tape resists burning and scorching while leaving clean coating lines and no adhesive residue.

## 310-16S SUPER TOUGH

Made with a woven glass substrate this plasma masking tape helps coating manufacturers mask effectively and efficiently. Use half the amount of tape in half the amount of time while only applying a single layer of tape.

## 290 Series

Made with Aluminum Foil and Fiberglass cloth laminate, this family of tapes is available in three thicknesses: 7S, 9 and 11S. It is highly conformable, releases cleanly from metal surfaces and leaves clean edge lines.

## 179 Multi-Layer

This high temperature, abrasion resistant multiply tape is made with a Silicone / Glass layer laminated to a heavy gauge aluminium foil. The aluminum layer enhances conformability and produces clean edge lines.

## HVMT Orange

Engineered for Gas-Fuelled HVOF, this tape is well-suited for some of the most demanding thermal spray applications. Highly conformable for precision masking, it withstands extreme heat and abrasion and releases quickly and cleanly after use.

## SW-35 Fabric

Available in widths of $38^{\prime \prime}$, this reusable Silicone coated Glass fabric Masking Blanket is ideal for masking larger surfaces as a secondary masking material.

High Velocity Masking Compound (HVMC)
Highly effective for masking difficult openings, crevices and contours, HVMC can be used to form reusable masking plugs, caps, and moulds. HVMC stands up to all forms of thermal spray and surface treatment.

## The Green Belting Advantage

At Green Belting Industries, our approach to producing quality performance materials contemplates the vast range of unique applications and possibilities, from routine to complex, and from harsh to extreme. Our line of PTFE, Silicone, and Aramid fabrics meets a diverse range of barrier, release, belting, gasket, and other specialized demands. Customers experience a dramatic increase in performance and process efficiency while reducing turnaround time. Our ever-increasing Knowledge Base of resources offers tips, techniques, and examples to provide support to our customers and end users.


## Strength and Performance - Fabrics, Belts, Tapes, and more...

Green Belting Industries offers the highest quality PTFE and Silicone coated fabrics, tapes, belts, and compounds for a multitude of applications ranging from baking sheets to thermal spray masking for jet engine turbine blades. Key performance attributes:

- Resistance to extreme temperatures and abrasion
- Non-stick surfaces resist adhesion and chemical bonding
- Excellent strength and dimensional stability
- Engineered adhesives provide exceptional grip and easy, clean release (leave no residue)
- Excellent heat transfer and dielectric properties (depending on material)
- Food-contact approved (chemically inert, nontoxic).


## Research and Testing

Our goal is to provide the fabric, tape, or belt you need, when you need it. Our R \& D teams are constantly testing the performance of existing products and researching new and different substrates, coating resins and manufacturing technologies in response to new and emerging applications. We are always striving to get better at what we do. Whether it's helping you find a resolution to a tough technical problem or simply getting your order out on time, Green Belting Industries is committed to providing you the most costeffective, best performing and widest choice of engineered performance materials in the marketplace.

## Manufacturing Excellence

As an ISO 9001 Quality Registered company, Green Belting Industries strives for continuous improvement and is committed to providing products and service of the highest quality. We draw from over 50 years of manufacturing excellence to design and build our own specialized equipment that delivers the highest quality engineered fabrics, tapes, \& belts to the marketplace. This emphasis on quality and performance enables our customers to benefit from enhanced production efficiencies, higher output quality, and time and cost savings.

## Friendly Expert Service

We know that we can only be as good as our people so Green Belting Industries thrives on individual initiative, teamwork, and superior service to our customers. Our knowledgeable Customer Service teams regularly receive hands-on, cross-departmental training which includes assembling product in one of the fabrication facilities. This approach has made our associates among the most industry-savvy in the business. With Customer Service teams based in all of our operating countries (Canada and the UK), beginning with your initial contact Green Belting Industries is with you every step of the way.

## Efficient Global Distribution

With two plant and office locations in Canada and the UK, Green Belting Industries customers benefit from quick and efficient global distribution. Bringing the resources of these locations together translates to distinct advantages for our customers, including manufacturing and fabricating efficiencies and improved inventory management, delivery, and customer service. All facilities are within major population centers, assuring that the majority of our customers will experience fast product delivery.

## GREEN BELTING INDUSTRIES

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