

FLAME RESISTANT

PRODUCT SPECIFICATIONS

Every valuable second counts when it comes to protecting workers exposed to fire. FR Emblems are made with the same techniques as custom embroidered emblems but with the added protection of 100% flame resistant fibers, combining safety with identification for high risk settings. This patch is ideal for tough environments and industrial garments, and meets regulatory standards for safety apparel.



DIMENSIONS

Minimum Size:

1.0" x 1.75" (2.5 x 4.4cm)

Standard Size:

13.0" x 17.5" (33.0cm x 44.5cm)

Inquire for larger sizes



LETTERING

Minimum Lettering Size:

3/16"



FABRIC COLOR/THREADS

Fabric:

Flame Resistant 100% Polyester Fabric

Thread:

Flame Resistant 100% Polyester Thread

See Color Chart. Custom fabrics and threads are not available for FR emblems.



BACKING TYPE

Flame Resistant Backing**Heat Seal**

(WARNING: HEAT SEAL BACKINGS ARE NOT FLAME RESISTANT)

Velcro

(WARNING: VELCRO BACKINGS ARE NOT FLAME RESISTANT)

Pressure Sensitive (Stick-On)

(WARNING: PRESSURE SENSITIVE BACKINGS ARE NOT FLAME RESISTANT)

NOTE: Can be easily sewn on as well



WASH CARE

Home Laundry**Industrial Laundry**

BORDER/EDGE STYLES

Flame Resistant Emblems are manufactured with a **merrowed border**, a separately stitched over-lock edge. Merrow borders have a maximum width of **3/8"**.

Limitations:

The ability to sew a merrowed border onto an emblem is directly related to the emblem shape. Odd, irregular and intricately shaped emblems may not be suitable for merrow application.

SHAPES THAT CAN BE MERROWED



SHAPES THAT CANNOT BE MERROWED



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www.pennemblem.com



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ORDERING GUIDELINES

Artwork & Setup Fees:

An emailed sketch card or scan of your finished emblem is included with the order for no additional cost.

Order Quantities:

25

Order Process:

During the ordering process, the following information is required to proceed with your request:

- Emblem Type
- Design Colors
- Fabric Colors
- Border Colors
- Dimensions
- Backing Type
- Quantity
- Special Delivery Needs



ARTWORK/TURNAROUND

Accepted Graphic File Types:

.cdr, .ai, .eps, .pdf, .jpg, .png, .psd, .cpt, .tga, .tiff, .bmp, .gif

Accepted Embroidery File Types:

.dst, .emb, .pxf, .tbf, .dsb, .exp

Most orders will ship in **3-5 business days**. Rush pricing and delivery is also available on certain products for quicker delivery.



PAYMENT METHODS

Visa, Mastercard, American Express, Discover, Wire/AHC Checks.

Note: If you choose to pay by check, and you do not have payment terms with us, we cannot process your order until we receive your check. This may not be the best method if the order is deadline driven. Please speak to your sales representative to discuss the order's urgency. If you are pre-paying for an order, you will receive an additional freight charge to your credit card after the order has shipped.

If you would like to be set up with payment terms, please contact Customer Service for assistance.



SUPPORT

For all questions, changes, and concerns, please contact Customer Service at 800-775-7366.

We are happy to help you to *always be on brand*, and to assist in showcasing your creation. For further product options and detail, please visit **pennemblem.com**.



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HEAT SEAL MACHINE APPLICATION



APPLICATION METHODS: SEW-ON, HEAT SEAL, OR PRESSURE SENSITIVE (STICK-ON)

The manner in which emblems can be attached to garments or other textile products relates directly to the *TYPE OF BACKING* used in the manufacturing process, the *EMBLEM SIZE*, and the *TYPE OF MATERIALS* that the emblems will be attached to. Almost all emblems can be sewn on, and when it comes to heat seal application, smaller emblems are easier to work with. The chart below outlines the application options relative to backing types.

BACKING TYPE	SEW-ON	HAND APPLY	HAND IRON	HEAT SEAL
 INDUSTRIAL	yes	no	no	yes
 FR URETHANE	yes	no	no	yes

Recommended settings are based on manually operated or air operated heat seal machines with top and bottom heated platens. Recommended: Pre-press for 5 seconds to heat up and burn off the sizing or finish on the garment before applying and attempting to bond the emblem.

HEAT SEAL TIPS:

THICKER FABRICS:







May require longer cycle times beyond the ranges.

TREATED FABRICS:

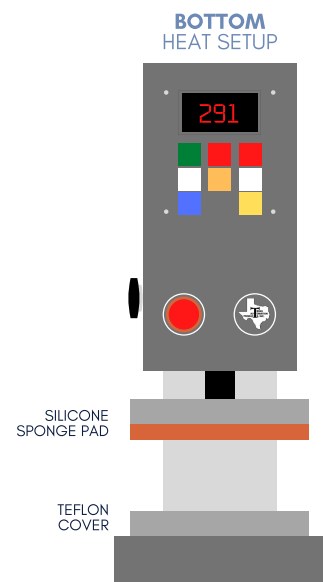
If finished with coatings, sizing, or repellants, may not allow for proper heat seal bonding.

SPECIAL FABRICS:

Leather, Suede, Nylon, Synthetics, Nylon-Shell, Interlinings, Rubberized Coatings, or Reflective Fabrics may react poorly to heat seal temperatures depending on thickness, weave, texture, and weight. It is recommended that these fabrics be tested first, with possible heat seal time and temperature adjustments. In many cases, it may be better to have emblems sewn on to these types of materials.

HEAT SEAL SETTINGS				
	 TOP (SPONGE)	 BOTTOM (TEFLON)	 PRESSURE	 CYCLE TIME
 INDUSTRIAL	405°F (207°C)	405°F (207°C)	60-80 PSI ON GAUGE	12-14 SECONDS
 FR URETHANE	340°F (171°C)	340°F (171°C)	90-100 PSI ON GAUGE	12-14 SECONDS

PRESSURE SETTINGS (BASED ON PLATEN SIZE)					
TEXAS AUTOMATION HEAT SEAL MACHINE 3" CYLINDER			NATMAR HEAT SEAL MACHINE 4" CYLINDER		
2" x 4"	40-60 PSI	on gauge	2" x 4"	40-60 PSI	on gauge
3" x 5"	55-60 PSI	on gauge	3" x 5"	55-60 PSI	on gauge
4" x 6"	60-80 PSI	on gauge	4" x 6"	60-80 PSI	on gauge
3.5" x 5"	60-80 PSI	on gauge	6" x 8"	75-95 PSI	on gauge



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