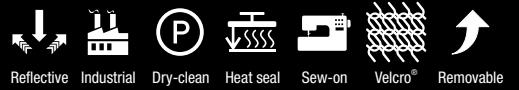


TekSpec[®]

Reflective Embroidered Emblems

Reflective emblems to be seen in the dark!



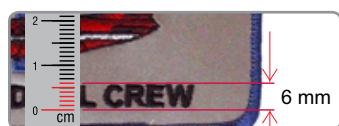
PRODUCT DETAILS

Emblem Dimensions:

- **Minimum** emblem size is **1.0" x 1.75"** (2.5cm x 4.5cm).
- **Maximum** emblem size is **11.5" x 14.0"** (29.2cm x 35.5cm).

Design Lettering Dimensions:

The text within a design should not be less than 6mm (0.24") in height. Smaller text may need to be altered to embroider slightly larger. For designs requiring a lot of small text, Woven Emblems or printed emblems may be a viable alternative.



Fabric Type & Colours:

Emblemtek currently uses **3M™ ScotchLite™** reflective material.

- 8965** white fabric (65% polyester / 35% cotton)
- 9920** silver industrial wash fabric (100% polyester)
- 8935** silver industrial wash flame resistant fabric (100% FR treated cotton)

Please refer to the Emblemtek Reflective Fabric Chart for material options; the 3M™ ScotchLite™ Technical Data sheets are available on our web site for more specific information.

Thread Type & Colours:

100% polyester. 120+ colours to choose from. 15 colours per design maximum. Emblemtek uses 100% polyester Madeira Polyneon™ thread. Choose from over 120 standard colours, which can be found on the Emblemtek Embroidered Emblem Thread Chart. A maximum of 15 thread colours can be chosen per design. Extra charges are applicable when using metallic or glow-in-the-dark threads. Please note that these **threads are not reflective**.

Custom Fabrics & Threads:

Not applicable.

Backing Types:

5 options. Hi-melt glue • low-melt glue • Velcro® • non-woven material (no-glue) • no backing

Border / Edge Styles:

3 options. Merrowed border • fabric edge • no border

Embroidered Reflective Emblems can be manufactured with merrowed borders, a separately stitched over-lock edge. The ability to sew a merrowed border onto an emblem is directly related to the emblem shape. Odd, intricate shapes may not be suitable for merrow application. Choose one colour of thread for the merrowed border from the Emblemtek Embroidered Emblem Thread Chart.

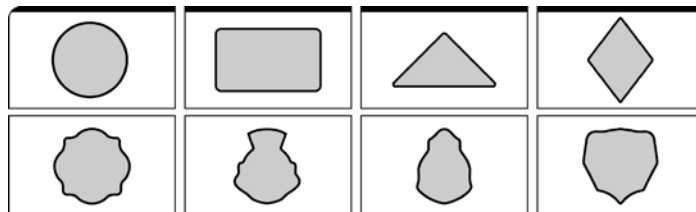


Merrow Border Limitations

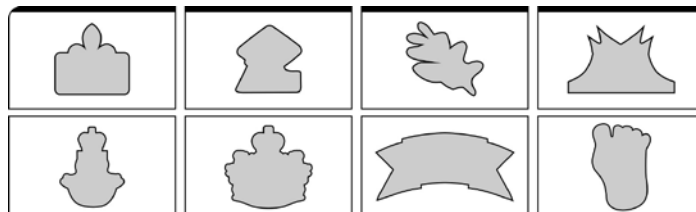
As noted above, Embroidered Reflective Emblems are manufactured with merrowed borders. The edges of the emblem are guided through a surging, over-lock sewing machine by hand, and a heavy stitching is applied.

Shapes with edges that are completely open and "exterior" are more easily merrowed. However, odd, intricate shapes with edges that angle back towards the interior of the emblem, generally cannot be merrowed.

Shapes that can be merrowed



Shapes that cannot be merrowed



Images are not to size.

Design / Emblem Treatment Options

Emblem treatment options such as **3D-puff** embroidery stitching or **double-sided** emblem are not available for this emblem type.

Accessory Attachment Options:

Accessory options, such as button loops, snaps, rings, etc..., are **not available** for this emblem type.

APPLICATION & WASH GUIDELINES

Application Methods







Sew-on or heat seal. The manner in which embroidered emblems can be attached to garments or other textile products relates directly to the type of backing used in the manufacturing process, the size of the emblems and the types 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	HEAT SEAL APPLICATION		SEW ON	BY HAND	
Hi-Melt Glue	385°F - 405°F (196°C - 207°C)	80 PSI (5.5 Bar)	15 - 20 seconds	✓	✗
Low-Melt Glue	365°F - 385°F (185°C - 196°C)	80 PSI (5.5 Bar)	15 - 20 seconds	✓	✗
Velcro®		✗	✗	✓	
Non-Woven Material (No Glue)		✗	✓	✗	

Heat Seal Notes & Tips

- Emblems should be heat sealed to the garment using a complete cycle time on both the front side and the back side of the garment and emblem. Emblems with heavier embroidery may require longer heat seal application cycle times beyond the ranges noted above.
- Thicker fabrics may require longer cycle times beyond the ranges noted above.
- Covering the emblem with a sheet of Teflon® or paper towel prior to the heat seal cycle may help to reduce a “crushing” affect, and may help to protect the garment from scorching.
- White materials (knits or blends) may scorch if heat seal temperatures are too high. It is recommended that fabrics be tested first.
- Pique knit and fleece materials may be sensitive to heat and pressure, with the possibility of being crushed.
- Rib-knit and stretch fabrics may pucker or distort when emblems are heat sealed to them. It is recommended that these fabrics be tested first. For items such as toques and scarves, it is recommended to have emblems sewn on rather than heat sealed.
- Treated fabrics finished with coatings, sizing or repellants may not allow for proper heat seal bonding.
- Items made with leather, suede, nylon, synthetics, nylon-shell, interlinings, rubberized coatings and reflective fabrics, such as jackets and luggage, 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 materials.
- Caps can sometimes be difficult to work with for heat seal applications. To achieve a higher potential for heat seal application success on caps, it is recommended that emblems not be greater than 2-1/4” in height and 4” in width.

Washing & Drying Guidelines

FABRIC TYPE	WASH TYPE	WASH TEMPERATURE	DRY TYPE
8965 white fabric	Commercial	Wash in domestic or commercial machine in water not exceeding 140°F (60°C) 	Tumble dry at low heat not exceeding 130°F (55°C) 
9920 silver	Industrial (Do not use detergents that contain free sodium hydroxide or potassium hydroxide)	Wash in commercial machine in water not exceeding 165°F (75°C) 	Tunnel dry: Maximum inlet temperature 250°F (120°C) Tumble dry: Maximum exhaust temperature 195°F (90°C) 
8935 silver flame resistant fabric	Industrial (Do not use detergents that contain free sodium hydroxide or potassium hydroxide)	Wash in commercial machine in water not exceeding 165°F (75°C) 	Tunnel dry: Maximum inlet temperature 320°F (160°C) Drying time not to exceed 7 minutes. Fabric temperature not to exceed 275°F (135°C) Tumble dry: Maximum exhaust temperature 195°F (90°C) 

Please refer to the 3M™ Scotchlite™ Technical Data sheets available on our web site for more specific information. It is recommended not to expose heat sealed emblems to wash or drying conditions exceeding 185°F (85°C).

ORDERING GUIDELINES

Artwork & Set-up Fees

No fees*. Emblemtek will provide artwork on new emblem orders for customer Approval prior to production. There are no artwork or set-up fees when existing, electronic or physical designs or samples are provided to Emblemtek. Artwork fees may apply when designs are created from scratch.

Order Quantities

Minimum 25. The minimum order quantity is 25 pieces

Pre-production Samples

Available \$. Electronic (scan) or physical pre-production samples (single unit) are available for approved designs. Samples fees are applicable, relative to design detail and emblem size. See price guide for more information.

Pricing

Charted & quoted. Charted pricing is available up to a certain size threshold, with larger quantities and larger emblem sizes custom quoted. See price guide for more information.

Delivery Times

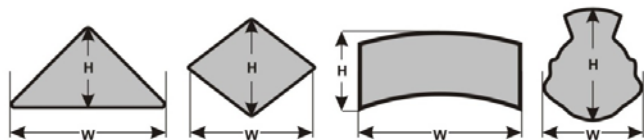
Delivery times are relative to order quantity and accessory options if chosen. Emblems greater than 6.00" x 6.00" (15.24cm x 15.24cm) may take longer to manufacture. See price guide for more information.

Ordering Guidelines

Order specifics. During the design, artwork and ordering processes, there are specific details that we require in order to proceed with your request, such as:

Emblem Type • Design Colours • Fabric Colour • Border Colour • Dimensions
• Backing Type • Quantity • Special Delivery Needs

Emblem sizes are calculated by adding the height (h) and the width (w), then dividing by two. Example 2" (h) + 4" (w) = 6 divided by 2 = 3.



Accepted Design / Artwork File Types

The chart below lists the various graphic and design file types that Emblemtek will accept for artwork and production purposes. Certain file types are preferred as noted.

Graphic File Types:

- CorelDraw ver.13 / ver.X3 (.cdr) *pref*
- Adobe Illustrator ver.CS3 (.ai) *pref*
- Encapsulated PostScript (.eps) *pref*
- Adobe Portable Document File (.pdf) *pref*
- Joint Photographic Experts Group (.jpg) *pref*
- Portable Network Graphics (.png) *pref*
- Adobe Photoshop ver.CS3 (.psd)
- Corel Photo-Paint ver.13 / ver.X3 (.cpt)
- Targa Bitmap (.tga)
- Tagged Image File Format (.tiff)
- Windows Bitmap (.bmp)
- CompuServe Bitmap (.gif)

Embroidery File Types:

- Tajima Stitch File (.dst) *pref*
- Wilcom EMB File (.emb) *pref*
- Pulse Embroidery File (.pxf)
- Tajima TBF File (.tbf)
- Barudan Stitch File (.dsb)
- Melco Expanded File (.exp)

For complete product details, please visit
www.emblemtek.com/products

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800-267-9385

emblemtek.com

info@emblemtek.com



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