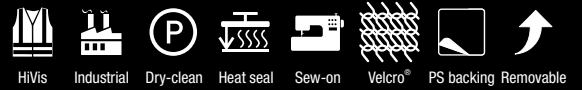


TekSpec®

HiVis Embroidered Emblems

HiVis embroidered emblems for high visibility wearer safety!



PRODUCT DETAILS

Emblem Dimensions

- **Minimum** emblem size is **1.0" x 1.75"** (2.5cm x 4.4cm).
- **Maximum** emblem size is **13.0" x 17.5"** (33.0cm x 44.5cm).

Design Lettering Dimensions

The text within a design should not be less than 4mm (0.16") 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

100% polyester twill. 4 colours to choose from.

The fabric content is 100% polyester twill, constructed for embroidery processes. Standard colours, which can be found on the [Emblemtek HiVis Emblems Fabric Chart](#). Separate TekSpec® sheets are available for emblems with reflective or flame resistant base fabrics.

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.

Custom Fabrics & Threads

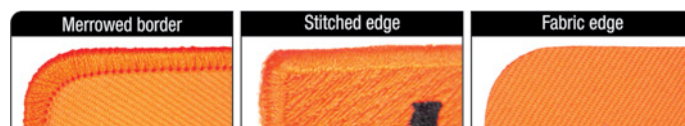
Customers wishing to supply their own fabrics or threads may do so for orders greater than 500 pieces. Extra charges may apply to track, convert, prepare and store these materials. Emblemtek will only use Madeira Polyneon™ or Isacord® polyester threads. Fabric must be at least 15" in width and preferably supplied in roll form. A customer service representative will guide you through the evaluation process for custom materials, to determine required specifications and volumes relative to emblem size and order quantity.

Backing Types

7 options. Hi-melt glue • low-melt glue • Velcro® • pressure sensitive "stick-on" • soft magnet • non-woven material (no-glue) • no backing

Border / Edge Styles

4 options. Merrowed border • stitched border • fabric edge • no border
HiVis Embroidered 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.

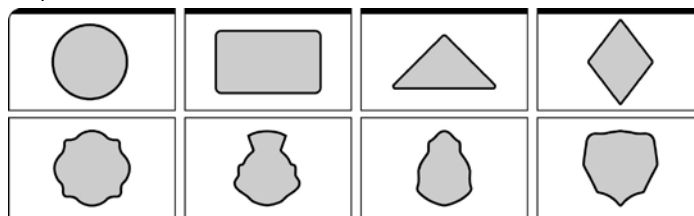


Merrow Border Limitations

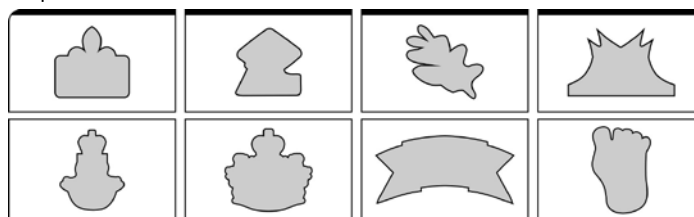
As noted above, HiVis Embroidered Emblems are manufactured with merrowed borders. The edges of the emblem are guided through a surging, over-lock sewing machine by hand, and a heavy stitching is applied.

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

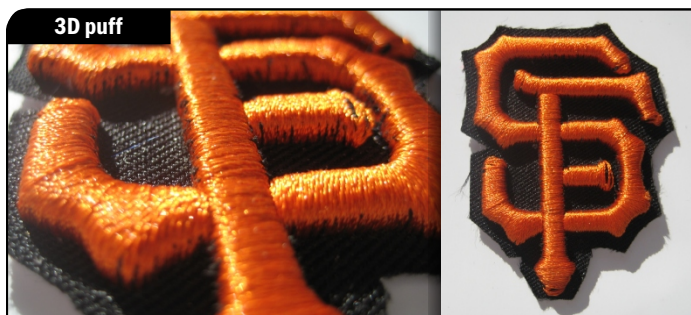


Images are not to size.

Design / Emblem Treatment Options

3D-puff.

HiVis Embroidered Emblems can be produced with **3D-puff** embroidery stitching to provide another element of texture and dimension.



Double-sided.

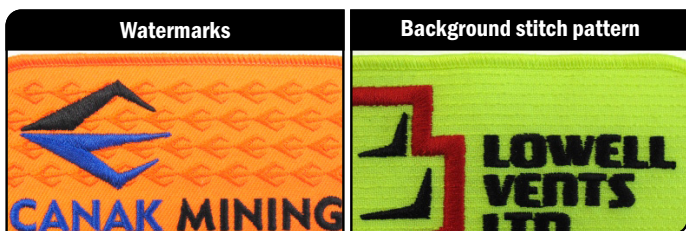
Emblems can also be configured as **double-sided** to create key-chains or pull-tags. Depending on the shape, double-sided emblems can be created in different formats such as:

- The same design on both sides.
- The same design on both sides, but using different colours.
- Two completely different designs on both sides.
- A design on one side and “blank” emblem fabric on the reverse side.



Watermarks and background.

Other design elements can be introduced to the embroidery, such as watermarks and background stitch patterns.



Name/Text inserts

HiVis Embroidered Emblems can also be produced with name/text inserts.



Accessory Attachment Options

HiVis Embroidered Emblems can be manufactured with a range of attachment options based on the following list.

- | | |
|---|---|
| 1. Button Loop | 9. Plastic Strap (luggage) |
| 2. Butterfly Clutch Pin | 10. Half-Moon Clip (as pull-tag) |
| 3. Push-Button-Snap | 11. Grommet & Split-Ring (as pull-tag) |
| 4. Fabric Loop & Split-Ring | 12. Grommet & Swivel Split-Ring (as pull tag) |
| 5. Button Slit | 13. Grommet & Split-Ring Coupling |
| 6. Grommet & Split-Ring | 14. Grommet & Swivel Clasp Hook |
| 7. Grommet & Chain | 15. Grommet & Swivel Snap-Hook |
| 8. Plastic Strap & Plastic Sleeve (luggage) | 16. Ornament String (gold) |



Images shown are to illustrate accessories, not emblem type.

APPLICATION & WASH GUIDELINES

Application Methods









Sew-on, heat seal or stick-on. 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®		✗	✗	✓	
Pressure Sensitive "Stick-On"		✗	possible	✓	
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.
- Terry knit materials such as towels and bathrobes may not provide a smooth enough surface for proper heat seal application. It is recommended that emblems be sewn on to these types of products.
- 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

BACKING TYPE	WASH TYPE	WASH TEMPERATURE	DRY TYPE
Hi-Melt Glue	Industrial	Wash in commercial machine in water not exceeding 176°F (80°C) 	Tumble dry at medium heat not exceeding 150°F (65°C) 
Low-Melt Glue	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) 
Velcro® Pressure Sensitive "Stick-On"	Home Care	Wash gently by hand in water not exceeding 86°F (30°C) . 	NO machine dry 
Non-Woven Material (No Glue)	Industrial (Sew-On Application)	Wash in commercial machine in water not exceeding 200°F (93°C) 	Tumble dry at high heat not exceeding 167°F (75°C) 

It is recommended not to expose heat sealed emblems to wash or drying conditions exceeding 200°F (93°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, including emblems with Velcro® or pressure sensitive "stick-on" backings, and emblems with accessory options.

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

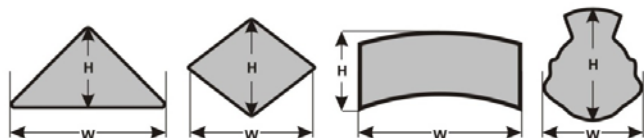
Delivery times are relative to order quantity and accessory options if chosen. Emblems greater than 6.00" x 6.00" (15.24cm x 15.24cm) may take longer to manufacture. See price guide for more information.

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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