

# CARE

**It is essential that all Flame Retardant garments are washed in a professional manner in accordance with specific washing instructions to ensure that the features and benefits are not compromised or lost. Only synthetic detergents should be used. Do not use soap detergent or softeners and garments should not be bleached.**

Tranemo recommends:

- Protective clothing certified according to EN ISO 20471 must be washed separately or alternatively together with other garments certified according to EN ISO 20471.
- For garments that contain wool, proper care is very important. Wool is sensitive to high pH levels and should therefore be washed in a neutral pH gentle wash process. Protective clothing containing wool should also be washed on a special wool program.
- In order to meet the requirements of EN 13034, the protective clothing needs to be re-impregnated in order to maintain the chemical protection. Tranemo recommends re-impregnation using an industrial laundry that is capable of carrying out this process.

Contact Tranemo for full information on washing procedures and detailed care instructions.

## Washing symbols



Wash at max 40°C



Tumble dry low temperature



Wash at max 40°C, gentle wash



Do not iron



Wash at max 60°C



Ironing max 110°C



Wash at max 60°C, gentle wash



Ironing max 150°C



Do not tumble dry



Do not dry clean

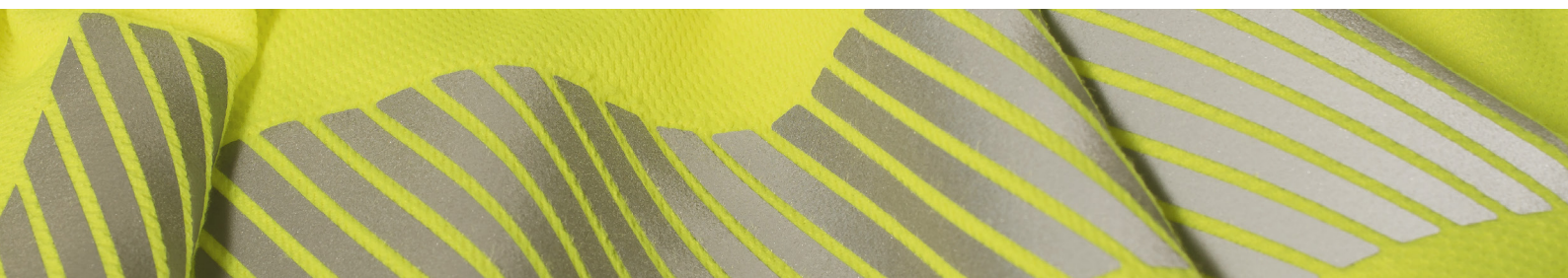
## Heat sealed reflective stripes

Stitched on reflective stripes can feel hard, stiff and give an uncomfortable feel to knitwear that is often soft and elastic. The use of segmented heat sealed reflective stripes makes the garments more compliant compared to ordinary stitch-on reflective stripes. Even on some lighter garments in woven fabrics, heat sealed reflective stripes have a strong advantage in terms of comfort.

To maintain reflection, the heat sealed reflective stripes should be washed at a neutral pH (i.e. do not use detergents with pH above 8).

Tranemo recommends:

- Washing at maximum 60°C
- Avoid alkaline detergents, pH<8 is recommended.
- Do not use softener, bleaching agents or optical whiteners.
- We recommend hang drying or tumble dry at max 60°C. For tunnel drying, maximum 100°C is recommended.



## Repairing a Flame Retardant garment

Do not use damaged Protective Clothing that cannot be repaired (i.e. holes or tears in the garment, closure not functioning properly). Small damage that does not affect the garments overall protection can be repaired, prolonging the lifetime of a garment by repairing it will also reduce our environmental impact. Repairs should not impair the performance of the Protective Clothing; and any repairs should only be done in accordance with Tranemo repair instructions and using identical fabrics and components. If needed, Tranemo can provide a repair kit as an optional product and provide guideline repair instructions.

## Exchange - Disposal

When a garment has been in direct contact with flame or strong heat, it may be brittle and weakened and should therefore be disposed of. If the garment has been exposed to chemicals which have penetrated the fabric, this will normally mean a degradation of the protection and it should be taken into consideration whether the garment should be discarded and replaced.

## Heat seal badges and embroidery on PPE Clothing

Heat seal badges need to be tested and approved before they are used on Flame Retardant garments. The heat seal badges that Tranemo produce are tested and approved for EN ISO 14116 and EN 1149-5 when attached to a Tranemo Flame Retardant garment. When a heat seal badge is exposed to high heat, it normally retains the energy for a longer period of time than the fabric. From a safety perspective, a large solid print is not recommended. The best placement is where there are several layers of fabric underneath that will help protect your skin.

Badges attached to a Flame Retardant garment should be made from Flame Retardant fabric. For EN 1149-5 garments, badges should be permanently attached. This should be done in such a way that separation between the badge and the clothing material is avoided.

If embroidery is applied directly to a Flame Retardant garment, it should be made from Flame Retardant thread. Incorrect embroidery, badge or heat seal badges attached to a FR garment can have a negative effect on the FR properties. Heat seal badges, badges and labels that are smaller than 10 cm<sup>2</sup> do not need to be flame tested according to the standard EN ISO 14116.

Standard	Heat seal badges	Embroidery	Badges
EN ISO 11612 IEC 61482-2 EN 61482-2 EN ISO 11611 EN 13034 Type PB [6]	Heat seal badges must be approved according to EN ISO 14116 Index 3.  Preferably applied where there are several layers of fabric underneath. Avoid covering large areas of the fabric.	Embroidery thread must be approved according to EN ISO 14116 Index 3.  Preferably applied where there are several layers of fabric underneath.	Badge fabric must be approved according to EN ISO 14116 Index 3.
EN 1149-5	Heat seal badges greater in width than 5 cm and bigger than 100 cm <sup>2</sup> and thickness more than 2 mm must be tested according to EN 1149-5.	Embroideries greater in width than 5 cm and bigger than 100 cm <sup>2</sup> and thickness more than 2 mm must be tested according to EN 1149-5.	Badges greater in width than 5 cm and bigger than 100 cm <sup>2</sup> and thickness more than 2 mm must be tested according to EN 1149-5 and permanently attached.
EN ISO 20471	Maximum size depends on size of garment and High-Visibility area.	Maximum size depends on size of garment and High-Visibility area.	Maximum size depends on size of garment and High-Visibility area.

## Applying a logo on High-Visibility garments

In order for a garment certified according to EN ISO 20471 to still meet the minimum fluorescent surface area requirement of the standard after applying a logo, care should be taken to ensure the logo should neither be too large or placed on the fluorescent surface so as to compromise the minimum required fluorescent surface area. Therefore, trousers should not have logos applied to the fluorescent surface area. The same recommendation applies to upper parts certified according to EN ISO 20471 class 3 with relatively small fluorescent surface area ( e.g. short-sleeved garments, women's garments or garments with contrast fabric). Please ask Tranemo for the High-Visibility details / area on each garment to know any limitation.