

## General Information

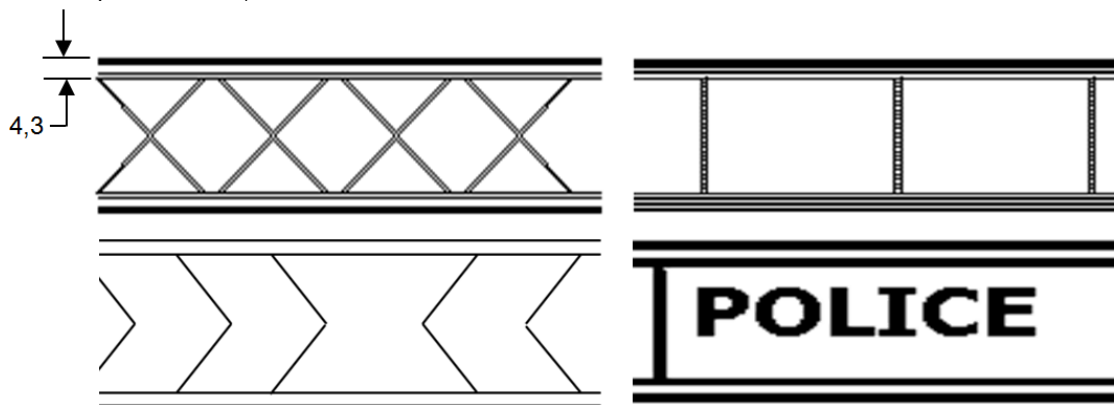
Reflexite® GP 100 / 200 / 300 / ID Garment Tapes are a tough weather and solvent resistant product designed to be sewn, heat sealed or welded to clothing. The tapes are produced with an application border clearly defined as a pair of parallel lines of seal pattern. The following measures should be taken to achieve the optimum performance from the tapes.

For more information on GP 100 / 200 / 300 / ID tapes, please reference Technical Product Bulletins, which are available from your ORAFOL representative.

## Sewing to Garment Background Fabric

ORAFOL garment tapes may be sewn onto high visibility garments. Always ensure that the sew line is centred between the parallel border lines or the fully sealed border. Never allow the sew line to run into any of the sealed cells of the tape.

See drawing below, please sew in the border (same method for GP 100 / 200 / 300 / ID – see below different patterns of the different tape references).



Recommended stitches: 8 per 25 mm.

We recommend taking the following measures if the tape binds when being sewn:

1. Reduce pressure on the machine foot.
2. Use a Teflon coated pressure foot, if necessary.
3. Use of a silicone spray or silicon coated cloth will help to lubricate the surface of the tape.

Do not stretch the tape as it is being applied.

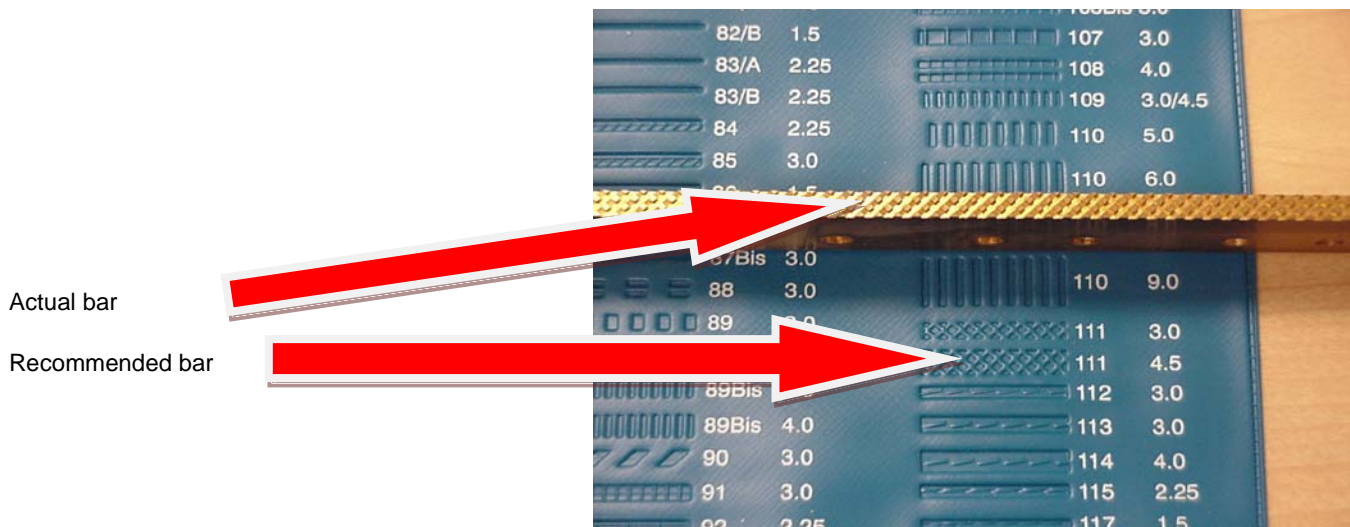
ORAFOL recommends that the tape is turned under and sewn through the doubled over edge. This helps prevent moisture ingress. Where possible within the design of the garment the cut ends should be inside the seams of the garment.

## Sealing to Garment Background Fabric

### Sealing Tool/Die

The sealing tool must be stippled or a diamond type patterned rule between 3 to 5 mm wide.

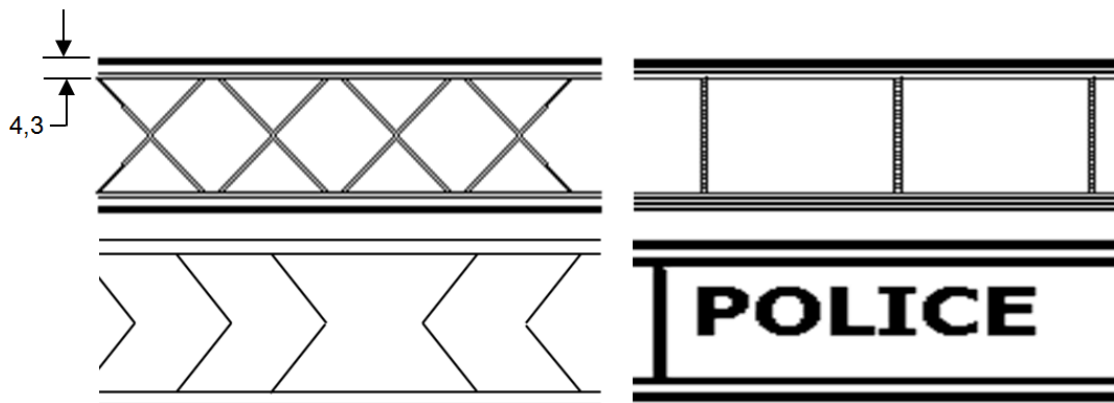
The picture below shows a typical stippled type tool. Avoid using typical "Bar Seal" type flat tool rule, as this will encourage no direct bonding between the tape and the coated background fabric.



It is preferable to use two tool rules set parallel, when sealing.

However, if using a single tool rule set up, the tool must not be allowed to seal inside the inner most application border seal line (see drawing below), and encroach into the sealed cells of the tape.

The sew border width (*from the tear seal to the bar sea*) measures 4.3 mm. Care should be taken when sealing to ensure that the finished seal width does not take up the entire 4.3 mm width in the sew border. (See below different tape pattern of the GP 100 / 200 / 300 / ID series).



## High Frequency Sealing Conditions

Sealing conditions are dependent upon the type of sealing equipment used. The primary parameters and conditions to be set are as follows:

HF Power applied to sealing tool  
Applied Pressure  
Sealing and Dwell Time(s)  
Tooling Material\*  
Dielectric material

The applied HF power should be set at a level such that an under or over seal does not occur. An under seal will not correctly weld the materials. An over seal will cause materials to thin out on the weld line.

Use of a brass tool is recommended.

Always ensure that the upper platen holding the tool is parallel to the lower platen to ensure a uniform seal. Poor alignment results in areas being over sealed and may lead to an arc formation.

\*Brass is expensive but very durable and gives very good HF transmission.

## Background Fabric

ORAFOL has carried out compatibility checks to most of the readily available heat sealable background fabrics. We cannot guarantee that the chosen background fabric is fully compatible for heat sealing and we recommend that the manufacturers of the background fabric are consulted before proceeding with heat sealing. ORAFOL cannot be held responsible for any non-compatibility of welded materials.

Do not stretch the tape as it is being applied.

Check the strength of the seal to the background fabric at regular intervals of production. Ensure that the tool / die covers the tape edge during sealing to stop an edge curling effect.

(Try to ensure that the bar seal width covers at least 60% of the sew border and the remaining 40% over the fabric, this of course will depend on seal strength, and may vary in order to increase the seal strength.)

## IMPORTANT NOTICE

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