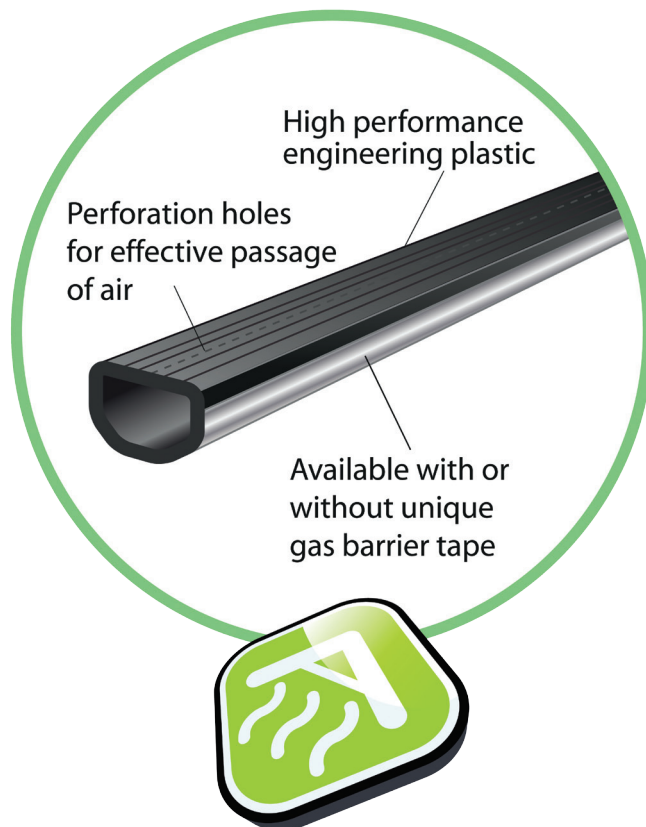




# Thermobar

Warm Edge Spacer Tube

Available in black, grey or white

## INSULATED GLASS MANUFACTURING GUIDE

- MANUFACTURED IN THE UK BY THERMOSEAL GROUP
- DELIVERED FROM DEPOTS NATIONWIDE
- CAN BE SUBSTITUTED INTO WINDOW ENERGY RATINGS
- VIRTUALLY ELIMINATES CONDENSATION ON THE INNER EDGE OF THE UNIT
- NO COSTLY INVESTMENT IN MACHINERY
- COMPLIES WITH EN1279 STANDARDS
- WORKS ON ALL STANDARD PIB MACHINES TO CREATE A REAL DUAL SEAL
- AVAILABLE IN BOXES AND STILLAGES
- BESPOKE RANGE OF FITTINGS INCLUDING CORNER KEYS, GAS KEYS, CONNECTORS AND STAPLE FITTINGS (NO CRACKING)
- FREE INKJET PRINTING COMPANY DETAILS

# Product Recommendations

## Insulated Glass Manufacturing

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**Thermobar™**  
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# Product Recommendations

## Insulated Glass Manufacturing

### 1. Colours and Sizes of Thermobar Available (1 of 1)

Thermobar™ is made from high performance engineering plastic with a gas diffusion barrier to minimise gas loss from the edge of the unit. It is a rigid tube and can be manufactured in a similar way to aluminium and steel. However, there are a few considerations that need to be kept in mind.

Thermobar (with gas barrier tape) and Thermobar LITE (without gas barrier tape) are available in Black, Grey, or White in the following sizes: 7.5mm, 9.5mm, 11.5mm, 13.5mm, 15.5mm, 17.5mm and 19.5mm. A 4mm Heritage bar is also available in Black as part of the Thermobar LITE range.

### 2. Packaging, Handling and Storage (1 of 1)

- Store in a dry environment which is heated to a constant temperature.
- Ensure packaging is sealed to protect from dust.



Do not store boxes flat as above. They can be easily crushed.



Boxes are to be stored as above with the label upright and neatly stacked.

Do not leave box ends open as above. Always close boxes to keep dust and dirt from the bar.



- We recommend that two people carry boxes in an upright position to support the bar from bending.
- Always wear Gloves for protection and to prevent finger marks.



# Product Recommendations

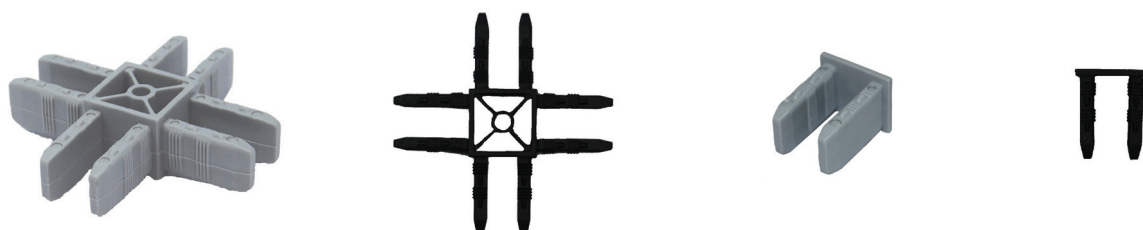
## Insulated Glass Manufacturing

### 3. Sawing Thermobar (1 of 1)

- Avoid sawing Aluminium and Thermobar profiles with the same saw. This will cause the blade to wear quicker and metal filings may cause issues with Thermobar.
- The movement of the saw needs to be controlled to ensure a clean cut of the bar. If you encounter problems, we can recommend an alternative saw.
- Lower blade speeds ensure a better cut. To achieve the best results, contact your saw manufacturer or local blade supplier.
- Thermobar must be cut with the breather holes face up to prevent the visible surface of the spacer bar being scratched.
- As with all other spacer bar cutting saws, frequently sharpen the saw blade to ensure a good visual sawing quality.
- Vacuum extraction of glass fibre dust is not necessary. A survey found dust levels to be below Workplace Exposure Limits set out in EH40/2005. Copies of the report are downloadable from the Thermoseal Group website.

### 4. Georgian Bar and Victorian Grille (1 of 1)

- All decorative profile and fittings used with Aluminium spacer bar are suitable for use with Thermobar.
- Specialist Thermobar muntin bar and fittings have been manufactured by Thermoseal Group in black, white and grey engineering plastic.
- We have a range of bespoke duplex centre and staple anchor keys for creating patterns with Thermobar. See below images of duplex keys - various sizes available.



Please check the maximum span heights and widths when using Thermobar.



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### 5. Desiccant Filling (1 of 1)

- As with Aluminium spacer bar, use 0.5–0.9mm extra mini bead desiccant for automatic fillers and 1–1.3mm standard desiccant for manual fillers.
- Of the four lengths of Thermobar spacer bar in your unit, fill 3-4 with desiccant. This applies to all spacer widths from 4mm to 19.5mm.
- We recommend that you frequently check the vibration of your desiccant filler. There is a possibility of a build up of static when manufacturing with Thermobar. This can lead to a low filling rate. Try cutting the bar on a non-metal surface.

### 6. Stapling Thermobar (1 of 1)

- Thermobar has the same external dimensions as traditional Aluminium spacer bar, so should be compatible for use on all standard staple tables.
- Keep Thermobar at room temperature. Stapling when cold can cause unnecessary cracking of the bar.
- If you do encounter an issue stapling Thermobar, try adjusting the pressure on your staple gun. You may also need to change the staples you are using. Contact our Georgian Fabrication Department for advice.

### 7. Spacer Bar Bending (1 of 1)

- Thermobar warm edge spacer can be bent using specialist equipment. Enquire for further information.
- Please contact us for information on machinery specially adapted to bend Thermobar into rectangles and squares.

### 8. Straight Connectors for Thermobar (1 of 1)

- There are straight connectors available for 11.5mm - 19.5mm bar for making use of off-cuts and for automated production. We can also supply Thermobar with pre-inserted connectors. Enquire for further information.





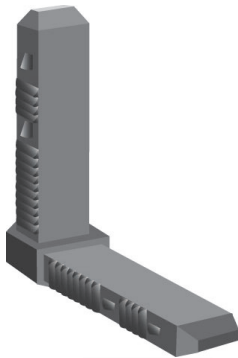
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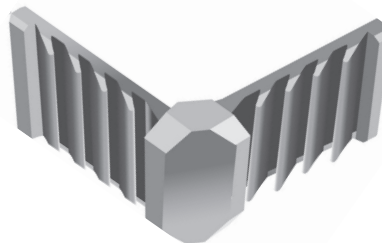
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### 9. Corner Keys for Thermobar (1 of 1)

- We have a range of bespoke push-fit corner keys specially designed for use with Thermobar Warm Edge Spacer. Standard keys are supplied in black, grey or white to colour-match with Thermobar profiles. Flexible keys (flexi keys) for shaped units are supplied in a neutral colour only.

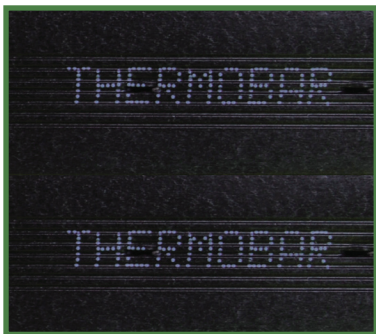


- Gas Keys are also available with and without hole.



- All keys are available in Black, Grey and White to coordinate with Thermobar spacer bar colours.

### 10. Inkjet Printing (1 of 1)



- On request, Thermobar can be ink jet printed with customer details.
- A silver-grey pigmented ink is used which is visible when printed on all of our warm edge spacer bars.
- We do not foresee any issues with ink jet printing should IG manufacturers wish to print their own.





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## Insulated Glass Manufacturing

### 11. Gas Filling Thermobar (1 of 1)

- To guarantee a perfect gas-tight seal, we recommend that all corners are sealed with PIB.
- Thermobar LITE (without gas barrier tape) is not suitable for use in gas filled units.

Please note:

Due to the nature of manufacture, there may be an occasional joint in the gas barrier tape. We recommend that you remove this section from your IG unit construction or seal the joint with gas barrier tape when gas filling.

## WARNING

THERMOBAR LITE WARM EDGE SPACER IS:

- **NOT SUITABLE FOR USE IN GAS-FILLED IG UNITS**
- **ONLY FOR USE WITH HOTMELT SECONDARY SEALANT.**

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### 12. Handling Frames (1 of 1)

- To avoid any possible misshaping, large frames are to be placed on trolleys and not hung.
- When hanging frames, always hang the smallest side at the top.





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### 13. Sealants (1 of 1)

#### A) PIB Primary Seal

- Thermobar works on all standard PIB applicators with no adjustment required.
- When using an automatic PIB application machine, use handing support positioned approximately 1m from the rotation axle and then if necessary adjust the speed of the rotation movement.
- As with all oversized units, if your unit is over 2000mm x 2000mm extra supports will need to be installed on your PIB machine for rotating the frame. If not, frames will need to be rotated manually.
- For Thermobar (taped version) ensure that PIB is applied in contact with the tape along the length of the frame.

#### B) Secondary Sealant

- Thermobar (taped version) is suitable for use with most secondary sealants. Thermobar LITE (non-taped version) is only suitable for use with hot melt secondary sealant.
- For single seal units, ensure that the unit is clamped so that the bar remains in place and doesn't bend under pressure when applying secondary sealant.

### 14. Panel Press Processing (1 of 1)

- Test and check compression acceptable in line with Factory Production Control Systems in place in your factory.





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## 15. Thermobar Sizes and Tolerance (1 of 1)



Sizes\*

| Width $\pm 0.15$<br>(mm) | Metres / Box | Metres / Stillage |
|--------------------------|--------------|-------------------|
| 4.0 mm                   | 250          | N/A               |
| 7.5 mm                   | 150          | N/A               |
| 9.5 mm                   | 125          | N/A               |
| 11.5 mm                  | 450          | 8,000             |
| 13.5 mm                  | 450          | 8,000             |
| 15.5 mm                  | 400          | 8,000             |
| 17.5 mm                  | 400          | 8,000             |
| 19.5 mm                  | 350          | 8,000             |

\*Other Sizes available on request.  
Standard Spacer height is 6.5mm



## 16. Contact Us

# THERMOSEAL GROUP

Dedicated to Insulated Glass

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