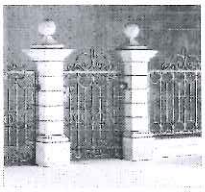

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FITTING GUIDELINES FOR TONGUE & GROOVE AND SQUARE EDGED PLASTIC BOARDS

- **Pre-drilling holes before installation is recommended.**
- **Oversize holes by a minimum of 2mm in relation to size of bolts as boards will expand and contract.**
- **Slot the boards into each other. N.B - They are a loose fitting T&G board.**
- **Fasten the boards to the support system using pre-drilled holes and a bolt and washer system. Do not use countersunk screws. Use coach bolts, coach screws and pan head with large washers wherever possible.**
- **We recommend stainless steel fixings and avoid use of countersunk screws wherever possible.**
- **Do not over tighten bolts, allow for thermal expansion at the rate of approx 2.1mm per linear metre per 10-degree rise in temperature.**
- **Do not nail or glue any part of the planks.**
- **Boards should be fitted where possible, at or near its anticipated upper service temperature and always stored in a level and flat condition.**
- **Before installing, boards should be stored at the ambient temperature that it will operate in once fitted. Ideally this needs to be 24 hours or longer. In Ireland, try to bring boards into workshop the night beforehand.**
- **Sawing: preferably with an electrical circular saw, with a large blade if possible. A small blade can heat up, causing the material to melt and to become more difficult to saw. When sawing the tongue and groove boards lengthways the smaller piece can become bowed.**
- **Boards have an indicative class 3 fire rating in accordance to BS476 Part 7.**

Other metalworkers have suggested the following:

When using the T&G boards for external structures, the use of a U-Frame is recommended. The boards need to be framed on all 4 sides and should not be packed too tightly.

An effective way of securing the first and last boards is to screw a long, strong screw horizontally through the side of the frame into the first and last board. Ensure that the screw is inserted at least 7 – 8 cm into the board.

Alternatively, halfway down the frame's vertical length a small metal plate (at least 5cm x 5cm) can be screwed across the joint where the side of the frame meets the first / last board. This will secure the end boards to the frame and prevent movement.

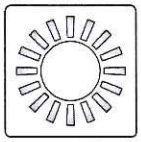
The intermediate boards are held straight due to the T&G system.

General considerations

Duraplas is manufactured from post consumer and post industrial recycled high density polyethylene (HDPE) plastic.

Due to the recycled nature of the source material, it is possible that there will be variability in product performance, finish and colour uniformity. However, the degree of variability is controlled by a ISO9001 Quality Assurance scheme.

As with most construction materials, it is recommended to identify the most appropriate face to be placed outermost when selecting Duraplas from the delivered pack



All plastics are susceptible to thermal expansion and contraction associated with temperature change. Allowances for thermal movement should be incorporated into the design and construction of structures using Duraplas to prevent warping and buckling.

Allowances within the structure for thermal movement are recommended as follows:

Ambient Temp °C	Potential for Expansion per lm	Potential for Contraction per lm
-10	+9mm	0mm
-5	+8mm	-1mm
0	+7mm	-2mm
+5	+6mm	-3mm
+10	+5mm	-4mm
+15	+4mm	-5mm
+20	+3mm	-6mm
+25	+2mm	-7mm
+30	+1mm	-8mm
+35	0mm	-9mm

The above table assumes the following:

- Service Temperature Range of -10°C to +35°C
- Thermal Expansion and Contraction of 2.0mm / lm / 10°C
- Product is conditioned to ambient temperature prior to installation