



CORRUGATED PLASTICS

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TECHNICAL DATA SHEET

TWINPLAST TEMPORARY PROTECTION BOARD

INTRODUCTION: Twinplast board is an extruded board made from polypropylene granules along with additional components corresponding to the particular application.

CERTIFICATION: Twinplast board is manufactured to Quality Assurance Standard ISO9002 (Certificate 1351/97) and Environmental Standard ISO14001 (Certificate number 1351/97).

NOMENCLATURE: When expressing the size of a board, Twinplast always use the flute length as the first dimension preferably with an (f) for (flute) for clarity.

SIZES, THICKNESS AND BOARD WEIGHT: Twinplast board is available in thicknesses from 2mm to 10mm. Weights from 250 grams per square metre to 2000 grams per square metre. For Temporary Protection Board applications Twinplast recommend thicknesses from 2mm to 6mm. Sizes up to 3 metre length x 1.5 metre width in flat sheet form or 50 metre x 1.0 metre width in roll format.

GRADES: Flame Retardant to LPS1207 (Certificate number 375a) and Certifire (Certificate of Approval No CF685 from Warrington Fire). Both of these certifications satisfy the requirements of the Joint Code of Practice "Fire Prevention on Construction Sites" Seventh Edition May 2009. Use where the protective covering should not significantly add to the fire risk, particularly when 'hot work' is involved.

Twinstat™ Antistatic Flame Retardant with charge half decay time < 1sec at 45% relative humidity. Use on clean room, computer floor and nuclear applications where static discharge is an issue and a tough board is required.

Recycled board containing 50% Post Industrial Waste. Use where environmental issues are high on the agenda.

Twinclear™ transparent board. Use where >90% light transmission is required.

Standard transparent board contains no colouring agents. Light transmission >75%.

Ultraviolet protected board for extended use outdoors (non flame-retardant only).

Coloured boards for colour coding e.g., traffic flow.

TOXICITY: Twinplast Flame Retardant, antistatic and recycled board do contain additives that could be harmful, but not under normal conditions of use. Fire retardant boards contain antimony trioxide and halogenated additives.

ANTISTATIC: The antistatic board contains additives incorporated within the board during the

extrusion process. The additives migrate to the surface to create a pathway for the electrical charge to go to earth. The higher the humidity in the air, the better the performance. The antistatic agent gets used up and – depending on the conditions of use – its expected life is 6 months.

RECOMMENDED SIZES:

| | |
|----------------------|-------------|
| Windows | 3.0m x 1.2m |
| Doors | 2.0m x 1.0m |
| General Applications | 2.4m x 1.2m |

CHOICE OF BOARD THICKNESS/WEIGHT:

As a general guide the thicker boards are heavy duty and the thinner boards are lighter duty, as can be seen from the crush resistance data further below. As a guide we can say that the static point load of a solid wheel forklift of lifting capacity 2500kg truck is 1000 KN/m² so use the heavy duty 6mm board whereas the static point load of a person is 20KN/m² so use the 2mm board. An intermediate board, for example 3 or 4mm, can be used for occasional heavy traffic or extremely high value applications. Please note that we could make a heavier 4mm board which has the crush resistance of a standard 6mm board at much lower cost. Consider the use of absorbent material directly in contact with the floor where it is not cured, since Twinplast board is impermeable to moisture. Consult us please to obtain the most cost effective solution.

ENVIRONMENT: Twinplast have a recycled board containing 50% Post Industrial Waste. Also in place is the RETURN scheme for recycling the boards after use. And Twinplast is the first manufacturer of corrugated plastic board in Europe to receive the ISO14002 Environmental accreditation. Twinplast board is a CFC-free product.



CARBON FOOTPRINT: Gross energy required to produce 1kg of polypropylene is 73MJ (Equivalent to 10.88 kg CO₂) and the gross energy required to process 1kg of polypropylene into board is 3MJ (0.45 kg CO₂).

SLIP RESISTANCE: Measured to BS7976-2 (Pendulum method)

| Sample | Conditions of Test | Slip Measurement (PTV's) |
|------------|--------------------|--------------------------|
| 2mm/250gsm | Dry | 72 |
| | Wet | 49 |
| 4mm/650gsm | Dry | 77 |
| | Wet | 37 |

Under the United Kingdom Slip Resistance Group Guidelines this indicated low slip potential.

CRUSH RESISTANCE:

| | |
|-------------|------------------------|
| 2mm/250gsm | 300 kN/m ² |
| 3mm/450gsm | 700 kN/m ² |
| 4mm/650gsm | 1000 kN/m ² |
| 6mm/1450gsm | 2000 kN/m ² |

STIFFNESS/FLEXIBILITY: Measured to BS7424:1991 by three point bending along the flute

| | |
|-------------|---------|
| 2mm/350gsm | 200mNm |
| 4mm/650gsm | 2200mNm |
| 6mm/1450gsm | 7500mNm |

GENERAL: Please contact Twinplast for any further guidance on the use and application of Twinplast board. The information contained above is correct to the best of our knowledge. Users should establish for themselves before use that the material meets their requirements. Quoted test results cannot be used as specification limits, but are typical test values intended for guidance. We accept no liability for any damage, injury, or loss resulting from this information.