

# **RECYCLED FOAM PVC SHEET**

Make a greener choice with Foamalux Xtra, the recycled range of foam PVC from Brett Martin. Manufactured with a recycled black core, a premium quality white surface is co-extruded from virgin PVC material ensuring a smooth, even layer for print and display, creating a better quality finish for all types of processing. Xtra's high density surface provides excellent resistance whilst the colour formulation of this surface layer has been developed specifically for digital processing to maximise colour reproduction and minimise the occurrence of UV yellowing resulting in a brighter whiter sheet with 'green' credentials. Containing up to 80% recycled content, the white surfaces and black core of Foamalux Xtra provide endless creative design opportunities.



### **OPTIONS**

Foamalux Foamalux SI – composite rigid foam PVC sheet with a base of recycled material and a coextruded smooth surface of virgin material.

 Thicknesses:
 3 & 5mm

 Width:
 1220mm

 Lengths:
 2440 & 3050mm

| FOAMALUX XTRA SI | WHITE   |
|------------------|---------|
| 1220 x 2440      | 3 & 5mm |
| 1220 × 3050      | 3 & 5mm |

Foamalux Xtra S2 – composite of rigid foam PVC sheet with a core of recycled material sandwiched between two layers of co-extruded virgin material.

Thicknesses: 10, 19mm Widths up to: 1560mm

| FOAMALUX XTRA S2 | WHITE      |
|------------------|------------|
| 1220 × 2440      | 10, 19 mm  |
| 1220 × 3050      | 10mm       |
| 1220 × 4050      | 10mm       |
| 1560 × 3050      | 10mm, 19mm |
| 1560 × 4050      | 10mm       |

# **MAIN BENEFITS**

- Recycled black core
- Bright white surface
- Consistently smooth and even
- Quality digital and screen printing
- Quality digital and screen printing
- Environmentally sound
- Light and cost-effective
- · Hard and resilient
- Versatile

## **APPLICATIONS**

The range offers superb screen printing and direct to substrate digital printing results, the product gives excellent effects when routered or engraved.

- Shop outfitting, exhibition stands and displays
- Signage and point of purchase/sale
- Vinyl application and photo mounting
- Screen printing
- Direct digital printing







| PHYSICAL PROPERTIES                         |             |                            |  |  |
|---|-------------|----------------------------|--|--|
| PROPERTY                                    | TEST METHOD | VALUE                      |  |  |
| Base Polymer                                |             | Polyvinyl Chloride (PVC)   |  |  |
| Smell                                       |             | Odourless                  |  |  |
| Moisture absorption (24 hrs @ 23oC)         | DIN 53495   | <0.25% by weight           |  |  |
| Water solubility                            | DIN 53122   | Insoluble                  |  |  |
| Oxygen index                                |             | 48%                        |  |  |
| Tensile strength at yield                   | DIN 53455   | I 6MPa                     |  |  |
| Modulus of elasticity                       | DIN 53457   | 0.9MPa                     |  |  |
| Elongation at break                         | DIN 53455   | 27%                        |  |  |
| Flexural strength                           | DIN 53452   | 27MPa                      |  |  |
| Impact resistance (Charpy test, un-notched) | DIN 53453   | 15kJ/m²                    |  |  |
| Average sheet hardness                      | DIN 53505   | > 30 Shore D               |  |  |
|   |             |                            |  |  |
| Vicat softening temperature                 | DIN 53460   | 76°C                       |  |  |
| Thermal conductivity                        | DIN 52612   | 0.085 W/m.K                |  |  |
| Thermal decomposition temperature           |             | >200°C                     |  |  |
| Thermal resistance, R (3mm)                 | CEN 492     | 0.20 m <sup>2o</sup> k/W   |  |  |
| Thermal expansion coeffi cient              | DIN 53752   | 68m/m.K x 10 <sup>-6</sup> |  |  |
| Service temperature range                   |             | -20 to 60°C                |  |  |
|   |             |                            |  |  |
| Dielectric strength                         | DIN 53481   | ~I00kV/cm                  |  |  |
| Surface resistance                          | DIN 53482   | >10 <sup>12</sup> Ω        |  |  |
| Volume resistivity                          | DIN 53482   | 4x10 <sup>15</sup> Ω cm    |  |  |
| Dielectric constant (1kHz)                  | DIN 53483   | 2.4                        |  |  |
| Dielectric dissipation factor (1kHz)        | DIN 53483   | 0.013                      |  |  |
| Comparative Tracking Resistance             | DIN IEC 112 | 600 V                      |  |  |
| Sound attenuation (3mm) (100-3500hz)        |             | I9dB                       |  |  |

| PRODUCT RANGE    | PRODUCT RANGE   |  |  |
|------------------|---|--|--|
| PRODUCT          | PRODUCT DESCRIPTION   |  |  |
| Foamalux Colours | Extruded foam PVC sheet (unplasticised) available in a vibrant palette of bright white and 15 colours   |  |  |
| Foamalux White   | Extruded foam PVC sheet (unplasticised) which optimises reproduction capabilities and UV stability to achieve outstanding print clarity and quality. Available in white only. |  |  |
| Foamalux Ultra   | Extruded foam PVC sheet (unplasticised) with a weatherable high gloss finish in white and 6 dynamic colours   |  |  |
| Foamalux Xtra    | Co-extruded foam pvc sheet (unplasticised) with a black recycled core and co-extruded white surface   |  |  |



#### **FABRICATION**

The Foamalux Xtra range provides a versatile material with a high strength to weight ratio that can be easily worked with using basic wood and metal working tools and easily transported due to its lightweight nature.

**Cutting** – using a cutting knife or a straight, finely serrated blade mounted on a hand-saw, band saw, disc (circular) saw or jigsaw. Sheets exceeding 3mm must be sawn. It is also suitable for sawing, drilling, milling, routing and guillotining.

**Fastening** – Panels can be fixed to supporting structures using screws, rivets, nails and adhesive.

**Bonding** – can be bonded to itself or other materials. **Drilling** – can be drilled using any conventional drill.

Welding – either by hot air welding or butt welding.

Die Cutting – flat shapes with complex outlines can be die cut from thinner sheets.

## **CHEMICAL RESISTANCE**

Foamalux Xtra rigid foam PVC, is resistant to most chemicals and atmospheric pollutants. Contact with solvents and wet wood preservatives must be avoided. See technical guide for full information details.

#### THERMOFORMING

Components which are relatively simple and shallow in form are thermoformable from Foamalux Xtra. An elastic state is reached between the temperature range 115-130°C.

**Folding** – can be folded on a simple jig fitted with a forming tool having a radius of about two and a half times the sheet thickness.

**Draping** – by softening a panel to an elastic state, draping over an appropriately shaped pattern and retaining it until cooled and rigid.

## INSTALLATION

Applications of Foamalux must make adequate allowance for thermal movement. Sufficient clearance must be allowed if holes are drilled for fixing and in rebates of support frames. For further guidelines on usage or installation instructions, please refer to the Foamalux product guide.

### **WEATHER & UV RESISTANCE**

Foamalux Xtra can be used for a number of short term exterior applications. Applications most shaded from direct sunlight will retain colour longest.

Climate, location and project specifications should be taken into account when considering Foamalux foam PVC for outdoor projects.

### FIRE PERFORMANCE

Foamalux has been independently tested to various European Fire Test Standards. Contact the technical department for the most up to date certification.



coamalux Colours is available in a vibrant palette of bright white and 5 colours; Foamalux White optimises reproduction capabilities and JV stability to achieve outstanding print clarity and quality; Foamalux JItra provides a weatherable high gloss finish in white and 6 dynamic clours; Visit the wahsite for further details







Td +44 (0) 28 9084 9999 Fax +44 (0) 28 9083 6666 mail@brettmartin.com www.brettmartin.com All reasonable care has been taken in the compilation of the information contained within this literature. All recommendations on the use of our products are made without guarantee as conditions of use are beyond the control of Brett Martin. It is the customer's responsibility to ensure that the product is fit for its intended purpose and that the actual conditions of use are suitable. Brett Martin pursues a policy of continuous product development and reserves the right to amend specifications without prior notice. The photographs used are for illustration purposes only and simply indicate possible uses of Foamalux Xtra foam PVC sheet. Foamalux is a registered trademark of Brett Martin Ltd.