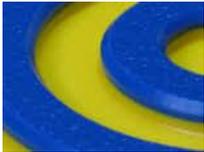


## Densetec® Design Panel



Densetec HDPE Design Panel is a thermoplastic sheet with multiple coloured layers. The material is manufactured by co-extruding two contrasting colours, one on the inside and the other on the outside. The colours are combined while the material is still molten producing a homogeneous sheet which is guaranteed not to delaminate, splinter or crack. It is superior to other laminates.



Densetec HDPE Design Panel is used worldwide in the manufacture of panels and components for the Playground, Sport, Leisure and Recreation Industries. The versatile properties of the material including UV stabilizers, make it resistant to fading, moisture, weather, stain and graffiti resistant. The perfect choice for outdoor environments.



Densetec HDPE Design Panel is easily routed or engraved using current CNC technology. Removing the outer colour and revealing the colour inside can create almost unlimited designs. Increasingly used across a wide range of industries and applications, Densetec HDPE Design Panel is being used to replace timber and composite panel components. Whilst the initial cost of these materials may be lower, the long-term maintenance requirements and shorter life expectancy make their choice a false economy. Additionally, Densetec HDPE Design Panels and components often give a more professional finish and greater product longevity.

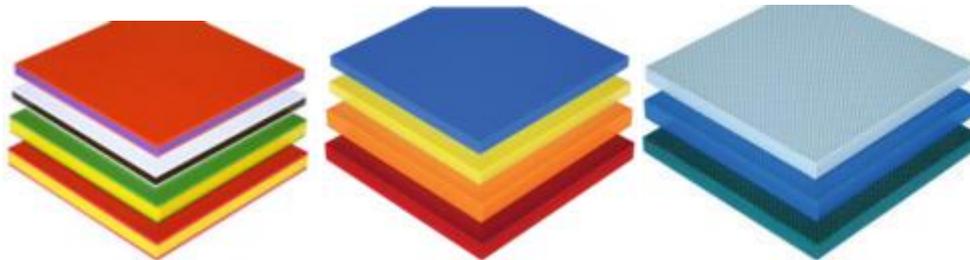


The wide variety of standard, bright and contrasting colours make it perfectly suited to many applications. Where there is a requirement for a more conservative colour scheme, pastel and subtle organic colours are also available. As the colour is embedded into the sheet, Densetec HDPE Design Panel requires no painting. This is especially useful in harsh environments where the colour will not chip, flake or wear away. Multi-coloured effects and images can be created by either planting on or implanting additional colours.



**2-Colour Design Panel is now available in 100% post-consumer recycled HDPE**

## Densetec<sup>®</sup> Typical Properties



**Surface Finish:** Textured (typically “orange peel” or “desert sand” finish with round or square slip-resistant pattern on TredSafe top surfaces only)

**UV Stability:** Where applicable Densetec HDPE sheets are manufactured with a standard 5 year UV protection package. The materials contain 0.1% antioxidant and 0.4% UV stabiliser in the final product. We would expect this to give a 5 year protection level dependant upon the conditions where the product is used. Please note the following sheets do not have a UV protection package as standard: Utility Board, Partition Board and Cutting Board.

**Expansion:** The coefficient of thermal expansion for Densetec Design Panel is approximately 1.5mm per metre per 10° C.

**Pigments:** None of our pigments have heavy metal contents in their pigment packages. We do not manufacture any sheets in colours that contain heavy metals (including cadmium or chromium). Most of the colours that we supply for playground equipment, for example, are even FDA approved, meaning that they are safe for food applications (FDA – US Food and Drug Administration).

**Fire Rating:** ASTM Test D1248, tested fire rating UL94HB. Densetec HDPE does not cause or suffer from surface flash in any way.

### Mechanical Properties<sup>3</sup>

	ASTM Test	Unit	Value
Density	D1505	Kg/m <sup>3</sup>	955
Tensile Yield Strength	D638 Type 4	N/mm <sup>2</sup>	28
Ultimate Elongation @ Break 50mm per min	D638 Type 4	%	>600
Brittleness Temperature	D746	°C	<-84
Flexural Modulus	D790	N/mm <sup>2</sup>	1378
Impact Strength	53453	kJ/m <sup>2</sup>	no break

<sup>3</sup>Physical properties reported herein were determined on compression molded specimens prepared in accordance with Procedure C of ASTM D1928. The nominal properties herein are typical of the product but do not reflect normal testing variance and therefore should not be used for specification purposes.

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