

## Description

Enviro-Plate has a very good toughness with a high degree of rigidity, and heat resistance. An economically viable product that has been manufactured using 100% reground, recycled materials. This product is 100% recyclable and has the capability to be a closed loop material. Its chemical resistance is excellent, and given its very low moisture vapour permeability it is an ideal barrier to water.

## Applications

- Car industry parts
- Industrial
- Chemical tanks
- Technical articles
- Machinery
- Tool housing
- Construction
- Flooring / wall cladding
- Traffic management signage

## Key Features

### Economical / Environmental

An economically viable product that has been totally recycled.

### Impact / Stiffness

Has moderately good impact compared to some other virgin polymer types. High modulus / stiffness.

### Printing

Due to its high chemical resistance, it needs to be corona treated or primed for ink adhesion.

### Quality Conformity

This product is made from 100% recycled material.

### Colour

Black.

### Thickness

2mm to 5mm.

### Finish

Naturally smooth with a range of embossed finishes. Please note, the surface aesthetics may vary from batch to batch.

Typical Physical Properties				
Properties	Unit	Standard	Method	Value
Density*	g/cm <sup>3</sup>	ISO 1183	-	1.08
Impact Izod Notched	KJ/m <sup>2</sup>	ISO 180	1A at 23°C	10
Tensile Strength	MPa	ISO 527	50 mm/min	35
Vicat Softening Point	°C	ISO 306	A/oil	95
Heat Distortion Temperature	°C	ISO 75	HDT/A 1.8MPa	86
Flammability Rating**	Rating	UL 94	2.0mm	HB

\*The density quoted should only be used as a guide. This value can change depending upon the type and quantity of pigments or additives used.

\*\*UL 94 ratings based on raw material data

## Sheet / Roll Size Specifications

Gauge	Standard Sheet Size
2mm to 5mm	2440mm x 1220mm
	3050mm x 1525mm

**NB:** Available sizes may vary depending on gauge / colours / embosses / order size, please ask for confirmation.

Distributed by:

Tennants UK Ltd, Highway Equipment Division, Mount Street, New Basford, Nottingham, NG7 7HX

## **Additional Information**

### **Thermoforming**

Ideally, mould draft angles between 4-6% and allow for 0.6-0.8% post mould shrinkage. Typical forming temperatures are between 150 – 185°C. During thermoforming, the use of a heated steel or aluminium mould is strongly advised.

### **Storage**

If sheets are stored in humid conditions for long periods, then it should be dried before thermoforming; ideally, this should be at 80°C for approximately 2 hours, plus an additional hour for every 1mm of thickness. It is essential that enough space be left between the sheets (20-30mm) to allow correct drying. The time lapse between drying and forming should be minimised to save energy and reduce heating times. If sheets are left to stand at room temperature for a long period of time, they may need to be re-dried.

### **Certification / Approvals**

As there isn't a complete history on the source of material used, it may not be possible to give any certification such as ROHS. Please contact Tennants Sales Department to discuss further.

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### **Cleaning and Maintenance**

Most common soaps or detergents dissolved in warm water can be used to effectively clean general dirt and surface contaminants. More stubborn solvent based markings (E.G. ink, marker pen, etc.) can be removed using detergents, however a stiff bristled brush or slightly abrasive pad may be needed to remove markings if material is affected deep in the surface emboss. If the above doesn't work, then try iso-propyl-alcohol or n-heptane. Abrasive scouring powders should be avoided. Areas of mouldings that have been dulled through cleaning can be restored using silicone-based polishes.

## **Chemical Resistance**

Chemical resistance is influenced by many factors, including concentration, temperature, exposure time and material stress. Therefore, the data below should only be used as a guide.

Reagent	Chemical Resistance
Acetone	Not recommended
Acid (Weak)	Excellent
Acid (Strong)	Good
Alcohol	Good / Fair
Anti-freeze	Excellent
Base (Weak)	Excellent
Base (Strong)	Good
Battery Acid	Good

Reagent	Chemical Resistance
Brake Fluid	Not recommended
Butter	Excellent
Coffee	Excellent
Detergent	Excellent
Diesel	Good
Foodstuffs	Good
Lubricating Oil	Very good
Petrol	Good

**Note:** The information contained in this leaflet is based on our present technical knowledge and experience. In view of the large number of factors that may influence the processing and use of our products, this information does not relieve the processors and manufacturers of the need to carry out their own tests and experiments. Our information does not constitute a legally binding assurance of product availability, particular properties, or suitability for a particular use. Patent rights that may exist must be duly observed.