



Working with our recycled plastic profiles

Our recycled plastic profiles are an environmentally superior alternative to traditional timber. They will not rust like metal or rot like timber and require no treatment, staining or painting.

Remembering the rules for support and expansion provides the long term maintenance free solution for your application.

- Eco-friendly; produced using 100% recycled polythene diverting valuable waste from landfill
- Long lasting; has a lifespan at least four times timber alternatives
- Low maintenance, rot proof and resistant to algae therefore there is little or no requirement for maintenance, painting or preservatives avoiding the use of CCA preservatives
- Fully recyclable; can be fully recycled at the end of its use
- Completely inert; will not leach any chemicals into the ground, or surrounding environment

Benefits and Features

- Tough, durable & strong; will not crack or dry out and is resistant to attack by insects
- Splinter-free
- Vandal-resistant; is more resistant to graffiti due to its surface
- Versatile; can be easily designed to be used in conjunction with other traditional materials

Storage



It is essential that our recycled profiles remain in pallet format i.e. stored flat and tied in bundles until the period of installation.

If smaller orders arrive loose by courier, these again should be stored in the same way.

Profiles stored flat and tied in bundles maintain their required shape before use.

General Information

- The finished product will be more flexible than the equivalent in wood. Always allow 500mm for below ground fixing of posts
- The profiles are manufactured from mixed waste plastic which can result in slight colour variation
- General wood working tools are sufficient for working with this material
- All profile dimensions are nominal, and profiles are NOT supplied at an exact finished length and may need trimming on site
- Ends of boards may display extrusion rests which may need to be sawn off prior to installation
- It is advisable to saw all boards to the required length at the same time and in the same environmental conditions to prevent shrinkage/expansion due to temperature fluctuations

As with all recycled products, it is essential to remember the need for expansion and contraction on all installation projects

The lower the temperature during installation, the greater the boards may expand. It is vital to calculate the maximum expansion of the boards in order to calculate the correct distance between boards/joints, walls. Drill holes should be slightly oversized by 3mm to accept screws. Inserting a 10mm slot will allow movement in fencing applications.

Example of expansion and contraction:

Installation of 3.1m decking profile at temperature of 15 °c

Max temperature expected 40°c

Temperature at installation 15°c

Temperature difference 25°c

Interval= 0.109 per m per 10°c

0.109mm x 3.1m x 25 = **8.44mm expansion**



Face boards can also be used to allow the free movement of the boards - allowing for the maximum amount of expansion and contraction.

The boards here are fixed at centre of board only and the ends are free to allow for the expansion and contraction.

As a rule, standard woodworking tools and fixings are used on our profiles. Additional detailed information is listed below.

We recommend that all fixings are made from stainless steel/brass or are plated, to retain the integrity, long life, rot free, maintenance free, quality of the final product.

GENERAL MACHINING

It is important that all drills, tools and cutters used are kept very sharp. Blunt tools will accelerate generation of heat, which in turn will lead to softening, and even melting of our synthetic wood. Cutting tools must be selected which ensure swarf is removed immediately. Any build-up of swarf will increase heat generation and cause melting around the tool.

SAWING

Circular blades with tungsten carbide tipped blades with a tooth pitch used for soft woods (i.e. 1-3 open type teeth per inch cross cut with positive cant), have been found to be most suitable for use with synthetic wood. We suggest a saw speed between 2,000 and 4,000 rpm. The blade should cut through the profile as quickly as possible to avoid heat generation, and also to maintain a quality cut.

Sawing is best done from the presentation face (the side that will be seen) and cut through to the back face of the profile. Saw blades should be sprayed with silicone lubricant (eg: WD40) or lubricating grease to reduce friction and help avoid any chipping.

DRILLING

Twist drills are best but speeds and feeds must be controlled to avoid melt of the swarf and clogging problems. Cordless drills with speeds of 400 - 900 rpm are better than high-speed drills. Titanium nitride coated bits minimise any problems (e.g. those supplied by Dormer etc.). As with wood, holes are best placed not less than 10mm from the profile edge and pre-drilling is recommended to prevent splitting

JOINTING AND FIXING

The type of jointing method to be used with this recycled plastic wood will depend on the application of the product and duty or stress likely on the joint. A joint may often incorporate more than one method of fixing. Finger type, mortice and tenon type joints can be made using standard wood working machinery with the appropriate cutters.

SCREWING

Twin flight, parallel thread, coarse pitch screws, similar to those used with wooden particle boards or hi-low screws, have been found to be more reliable than conventional taper thread wood screws. The greatest strength is achieved when screws are inserted at right angles to the extrusion axis. Care must be taken to avoid stripping threads when driving screws in the direction of extrusion. This risk can be overcome by using torque limiting power drills and screwdrivers. Fully tighten all screws and then back turn screw, half a turn.

NAILING / PINNING / STAPLING

Nailing is not generally recommended for joining two or more pieces. If this type of fixing is required, then panel pins are better. Drilling pilot holes may be necessary to avoid splitting, depending on the thickness and density of the material. Stapling has been found to be an effective method of joining thinner sections of our low density synthetic wood. We recommend pneumatically powered guns for use on these types of fixings.

PLANING

Standard timber planing tools can be used. The finish depends on the condition of the blade, feed rate, cutting speed, clearance and cutting angle.

IMPACT

Use of a ram or protective sleeve is recommended if profiles are hammered mechanically into the ground – it will prevent potential damage to the product.

All the information provided here is for guideline use only, and the customer is solely responsible for establishing the suitability of the product for the project. No liability can be accepted.

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