

Materials and Finishes

European Oak seasoning in our timber yard



Timber Options and Finishes

Streetmaster is an FSC and PEFC certified supplier.

The main timber options we offer are iroko, European oak, American oak and treated softwood. We also supply products made from other hardwoods, but in very small volumes.

All of the European oak, American oak and treated softwood we purchase comes from either FSC or PEFC certified sources with chain of custody certification.

The Forest Stewardship Council (FSC) and The Programme for the Endorsement of Forest Certification Council (PEFC) are both independent, non-governmental organisations whose purpose is to promote the responsible management of the world's forests.

This is achieved through a global forest certification system, the key elements of which are forest management and chain of custody certification. This ensures that timber produced in certified forests can be traced from the forest to the end user.

European Oak seasoning in our timber yard



Iroko (Chlorophora Excelsa)



Iroko finished in Cuprinol exterior wood stain

Countries of origin, and their policies

The iroko we use is not FSC or PEFC certified. It is sourced from well established producers in Ghana and the Ivory Coast. These countries have long had a policy of sustainable forestry management. We do not obtain supplies from South America, where large scale rain forest destruction is occurring.

Qualities

Iroko is classified by The Timber Research and Development Association (TRADA) as 'very durable', and is only used by us in kiln dried form. It is a stable weather resistant material, which has been used extensively in the manufacture of external furniture since about 1945. Iroko does not normally split, shake or surface check extensively, though small splits on end grain and surface checking can occur.

Warping can also sometimes occur, particularly on the boards of our steel framed seats, which have relatively long unsupported sections. Wide colour variation, from light yellow to dark brown has become more common as producers seek to reduce waste. This colour variation can occur on a single piece of timber anywhere along its length, or as a difference between boards on the same seat. Very small white spots caused by mineral penetration as the tree is growing can sometimes be apparent. These spots cause no harm and become invisible as the seat ages.

Applications

This timber is the commonly specified option for cast iron seats, traditional all-timber seats, steel framed seats, picnic furniture and litter bins.



Iroko finished in Cuprinol exterior wood stain after 18-24 months



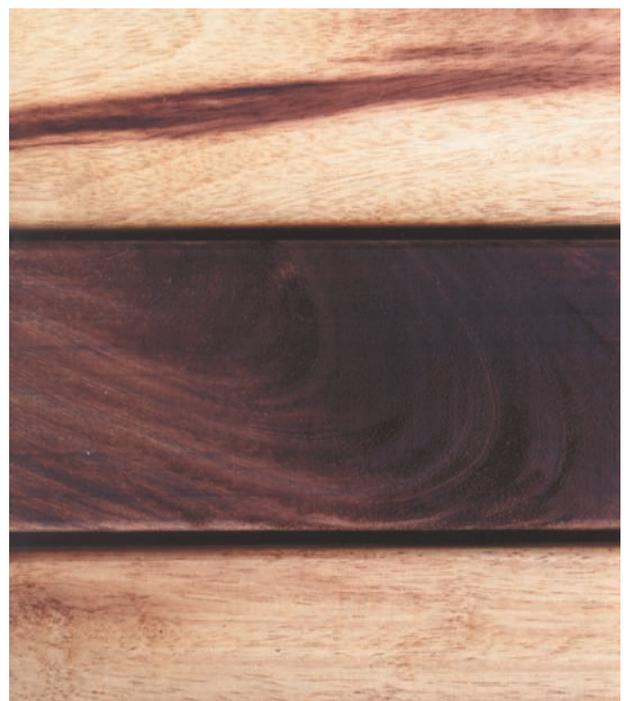
Iroko finished in Cuprinol exterior wood stain after 18-24 months

Finish and maintenance

Iroko boarded cast iron seats, steel framed seats, picnic furniture and litter bins are finished with two coats of microporous Cuprinol exterior wood stain. The Cuprinol slowly degrades due to the action of ultra violet light and abrasion, and might be expected to require additional coats after 18 – 24 months. If this is not done the iroko will turn ash grey in colour.

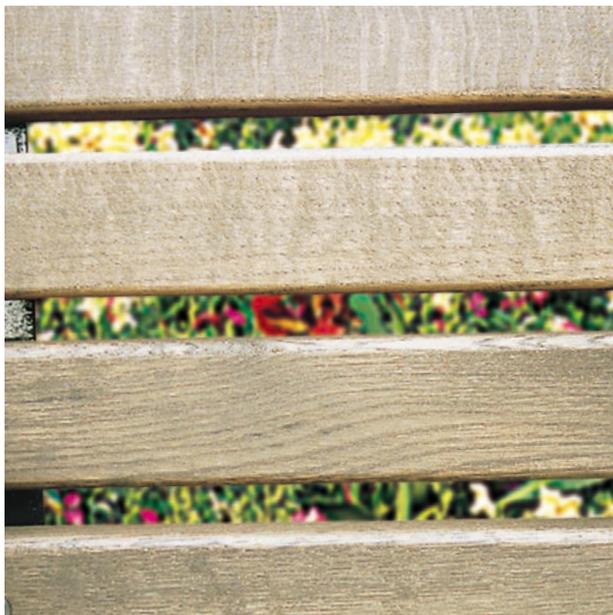
The iroko seats in our Traditional range are planed and sanded as standard, and have the timber graded to help reduce the degree of colour variation. To enhance their appearance, and to give them a more even colour, they can be finished in a dark oak coloured spirit based wood stain, if required. The wood stain enhances the appearance of these seats only for the first few months after installation, and will fade due its exposure to sunlight and rain.

If left untreated most of the wood stain will have disappeared after about 12 months and the seat will then be a light ash grey colour. It will remain this colour if left untreated. If the condition of the seats is reviewed at six monthly intervals and wood stain applied, this will help to maintain the original colour the seat had when it was delivered.

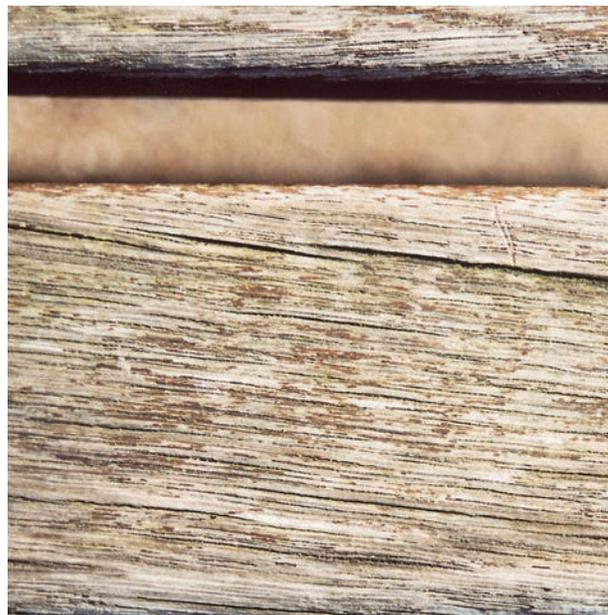


Iroko colour variation

Seasoned European Oak (Quercus Robur)



Seasoned European Oak in standard finish



Seasoned European Oak in standard finish after 24 - 36 months

Countries of origin, and their policies

We source this wood from FSC and PEFC certified sources in France and Germany. We currently buy 10% from France, with the balance coming from Germany. The proportion we source from each country varies each year and depends upon availability and price. The felling of trees in each of these countries is strictly controlled by the relevant government departments. In both France and Germany the growing of oak for commercial purposes is very established, and has always been controlled and licensed.

Qualities

Seasoned European oak is classified by TRADA as 'durable', and has been used externally for centuries. We almost always purchase it green, and air and kiln dry it ourselves to obtain a reasonable moisture gradient, and the correct moisture level of between 19% and 21% (plus or minus 3%). These two factors are the key to maximizing stability. It has more knots than either iroko or American oak, and has a tendency to surface check, split, shake and warp, particularly on the larger sections of timber. These characteristics are an inherent quality of this timber, and are beyond our control. We have invested heavily in this wood, and have more than a hundred tons air drying. 80mm thick sections take about three to four years to dry.

Applications

Cast iron seats, traditional all-timber seats, steel framed seats, picnic furniture and litter bins can all be specified with this timber, at additional cost.

Finish and maintenance

The variability in the surface consistency and tendency to movement can effect the adhesion of high build surface finishes. We do not recommend the application of any high build finish to seasoned European oak. We finish seasoned European oak in a dark oak coloured spirit based wood stain, which cannot lift or peel. The condition of seats and picnic units should be reviewed after approximately six months, and any areas of raised grain briefly sanded down with fine sandpaper. If the units are re-stained at this stage it will improve their appearance. If the finish is not maintained oak will turn ash grey in colour.

Green European Oak (Quercus Robur)



Green European oak in standard finish



Splitting in green European oak after 3 - 4 months

Countries of origin, and their policies

We source this wood from FSC and PEFC certified sources in France and Germany. We currently buy 10% from France, with the balance coming from Germany. The proportion we source from each country varies each year and depends upon availability and price. The felling of trees in each of these countries is strictly controlled by the relevant government departments. In both France and Germany the growing of oak for commercial purposes is very established, and has always been controlled and licensed.

Qualities

Green European oak is a hard, heavy and durable wood, which is ideal for inexpensive rustic products. Because it is generally used green (i.e. it has not been dried), and fresh sawn, it has a high moisture content. Some degree of surface checking, splitting, shaking and warping will **always** occur, particularly if long hot periods of weather occur soon after installation. We partially air or kiln dry this material for use on bins and recycling units, so these items are less prone to movement

Applications

We use this material for the Woodland range, some of the items in the Junior range, and some other items.

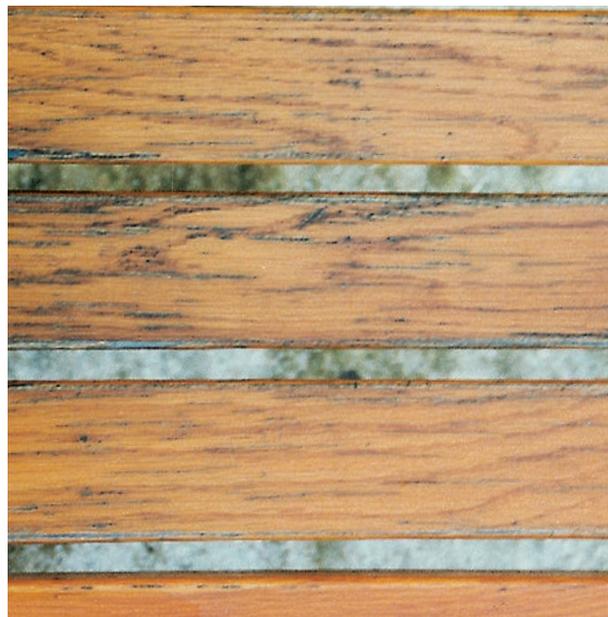
Finish and maintenance

We finish green European oak in a dark oak coloured spirit based wood stain, which cannot lift or peel and which conceals the black marking this material is prone to, if left untreated. The condition of seats and picnic units should be reviewed after approximately twelve to sixteen weeks, and their top surfaces briefly sanded down with coarse sandpaper, and any sharp protrusions removed with a trimming knife. If the units are re-stained at this stage it will considerably improve their appearance. We supply 500ml of stain free with every seat or bench delivered (1000ml with a picnic unit), to enable this work to be done. If the finish is not maintained oak will turn ash grey in colour.

Seasoned American Oak (Quercus Alba)



Seasoned American Oak in standard finish



Seasoned American Oak in standard finish after 18 - 24 months

Countries of origin, and their policies

American oak is sourced from the eastern states of North America, and all the timber we buy is FSC certified. The felling of this timber is carefully controlled by the American government, who have had environmental legislation in place for more than nine decades.

Qualities

American oak is classified by TRADA as 'durable' and has been used for internal and external purposes for a great many years. It is not quite as durable as seasoned European oak. It is stable, virtually knot free, and kiln dried. It has some tendency to surface check, shake and split, though these effects are not normally widespread.

Applications

Cast iron seats, steel framed seats, Universal Bench System, picnic furniture and litter bins can all be specified with this timber, at additional cost.

Finish and maintenance

We finish American oak in three coats of microporous Cuprinol exterior wood stain. Because of the possibility of movement, particularly surface checking, the adhesion of the surface finish can sometimes be effected, generally on small areas of timber. The Cuprinol slowly degrades due to the action of ultra violet light and abrasion, and might be expected to require additional coats after 18 – 24 months. The finish on American oak should be maintained to increase its life span. If the finish is not maintained American oak will turn ash grey in colour.

Treated Softwood



Treated Softwood in standard finish



Treated Softwood in standard finish after 18 - 24 months

Countries of origin, and their policies

All our treated softwood is from FSC and PEFC certified sources in Scandinavia and Eastern Europe. Because it is so fast growing the environmental issues concerning the use of this material are very different to hardwood environmental issues. Most countries that grow softwood, and all the countries we buy it from, have a steadily increasing amount of land given over to softwood production, which is, in effect farmed and harvested like any other crop.

Qualities

Treated softwood used for the Woodland Range, Robin Hood bench, Cinderella seat and Pied Piper picnic unit, which is in contact with the ground, is sent for CCA treatment after we have cut and machined the components, so that all the final surfaces and end grain are properly protected. Timber used for the Goldilocks seat, Suffolk bench, Aladdin bench and Peter Pan picnic unit that is not in contact with the ground, is Vacsol Aqua treated. Though not as durable as our hardwood options, both of these treatments enable the timber to last well in external environments. All Vacsol Aqua treated softwood we supply has been kiln dried before treatment, CCA treated softwood has not been kiln dried. Softwood is very susceptible to seasonal shrinkage and expansion when used externally. As a result, some splitting, cracking and warping **will** occur on products made from this material.

Applications

Treated softwood is an option for Woodland seats and picnic furniture, an option for some items in the Junior Range, and is used as standard for the Suffolk bench.

Finish and maintenance

We finish the Woodland Range products, Robin Hood bench, Cinderella seat and Pied Piper picnic unit in a dark oak coloured spirit based wood stain. The Suffolk bench, Goldilocks seat, Aladdin bench and Peter Pan picnic unit with brown boards are finished in a dark oak coloured spirit based wood stain. The Goldilocks seat, Aladdin bench and Peter Pan picnic unit specified with blue, yellow, red or green boards are finished in Cuprinol Premier wood stain. Treated softwood might be expected to require additional coats after 18 – 24 months. If these finishes are not maintained treated softwood will turn ash grey in colour.

Summary of timber options available

	Iroko	Seasoned European Oak	Green European Oak	Seasoned American Oak	Treated Softwood
Grave Markers		✓			
Cast Iron Seats	✓	✓		✓	
Junior range	✓	✓	✓	✓	✓
Litter Bins	✓	✓	✓	✓	
Picnic Furniture	✓	✓	✓	✓	✓
Steel Framed Seats	✓	✓		✓	
Traditional All Timber Seats	✓	✓			
Tree Posts	✓	✓			
Universal Bench System	✓			✓	✓
Woodland Range	✓		✓		✓

Due to unpredictable issues in international timber supply, it may be necessary to supply a substitute timber to that originally specified. The substitute timber would always be of equal or superior quality and environmental credentials.

Whilst every effort has been made to make the dimensions and weights stated for each product as accurate as possible, these are only approximate. Weights especially are prone to variation, particularly with products made from European oak.

Metal Finishes



Street-Tough

Our Street-Tough finish has been developed to offer a durable and maintainable finish for steel framed and all-steel products. It is particularly recommended for aggressive environmental conditions, such as places close to the sea, or areas with severe vandalism problems. Though more expensive than the Acrylic Coating, it is a good investment, as products specified with this finish will need less maintenance in the future.

This four stage system involves:

1. Hot dipped galvanising to ISO 1461
2. Chemical etching to provide key for paint
3. Priming with high build two pack epoxy
4. Top coating with two pack satin finish acrylic polyurethane

Acrylic Coating

Our Acrylic Coating is offered as an economy option for our steel framed and all-steel products. It is less expensive than our Street-Tough finish, and has similar benefits, but without the considerable advantage of galvanising. It is not recommended for sea front environments (particularly on all-steel products) where rusting would occur.

This system involves:

1. Jet cleaning to remove grease and dirt
2. Priming with high build two pack epoxy
3. Top coating with two pack satin finish acrylic polyurethane

Acrylic PLUS Coating

This is the standard finish we offer for our cast iron products. Because of their complexity castings are difficult to finish, so to ensure a good covering of primer (which is the most important element of the finish) we apply an additional intermediate coat of two pack epoxy.

This system involves:

1. Priming with high build two pack epoxy
2. Intermediate coat of high build two pack epoxy
3. Top coating with two pack satin finish acrylic polyurethane

This system offers special advantages:

- The galvanised base treatment protects the metal even if the finish is damaged.
- The chemical etching is done by fully immersing the product or component in a phosphoric acid wash, to provide the perfect key for paint. Etching primers are nothing like as effective as this method.
- The sprayed top coat is durable and resistant to the "chalking" action of ultra-violet light.
- The metal can be refinished on site with any ordinary paint in the future.
- Available in any of twelve standard colours at no extra cost (see page 90).
- Also available in any other B.S. or RAL colour for a surcharge.

This system offers:

- The sprayed top coat is durable and resistant to the "chalking" action of ultra-violet light.
- The metal can be refinished on site with any ordinary paint in the future.
- Available in any of twelve standard colours at no extra cost (see page 90).
- Also available in any other B.S. or RAL colour for a surcharge.

This system offers:

- The sprayed top coat is durable and resistant to the "chalking" action of ultra-violet light.
- The metal can be refinished on site with any ordinary paint in the future.
- Available in any of twelve standard colours at no extra cost (see page 90).
- Also available in any other B.S. or RAL colour for a surcharge.

Sea Front Specification

This is an improved finish specification option for our cast iron products. It consists of an extra top coat on the castings, and an extra coat on the boards (whether they are wood or steel).

Specification:

CASTINGS

1. Priming with high build two pack epoxy
2. Intermediate coat of high build two pack epoxy
3. Top coating with two pack satin finish acrylic polyurethane
4. Additional Top coat of two pack satin finish acrylic polyurethane

BOARDS

Recycled plastic boards require no finishing. Iroko boards are finished in three coats of Cuprinol exterior wood stain. Steel boards are finished in:

1. Hot dipped galvanising to ISO 1461
2. Chemical etching to provide key for paint
3. Priming with high build two pack epoxy
4. Top coating with two pack satin finish acrylic polyurethane
5. Additional top coat of two pack satin finish acrylic polyurethane

Sea Front PLUS Specification

This is the "ultimate" finish specification option we offer for our cast iron products. It is, in effect, our Street-Tough finish applied to castings, and has all the qualities of our Sea Front Specification above, PLUS galvanising. The castings finished to this specification have an extended holiday period from maintenance, and simply look good for longer. The boards gain a useful extra coat of Cuprinol exterior wood stain, which helps to counteract the abrasive effect of wind and water borne sand.



Galvanised Castings

Specification:

CASTINGS

1. Hot dipped galvanising to ISO 1461
2. Chemical etching to provide key for paint
3. Priming with high build two pack epoxy
4. Intermediate coat of high build two pack epoxy
5. Top coating with two pack satin finish acrylic polyurethane
6. Additional top coat of two pack satin finish acrylic polyurethane

BOARDS

Recycled plastic boards require no finishing. Iroko boards are finished in three coats of Cuprinol exterior wood stain. Steel boards are finished in:

1. Hot dipped galvanising to ISO 1461
2. Chemical etching to provide key for paint
3. Priming with high build two pack epoxy
4. Top coating with two pack satin finish acrylic polyurethane
5. Additional top coat of two pack satin finish acrylic polyurethane

Cast Iron

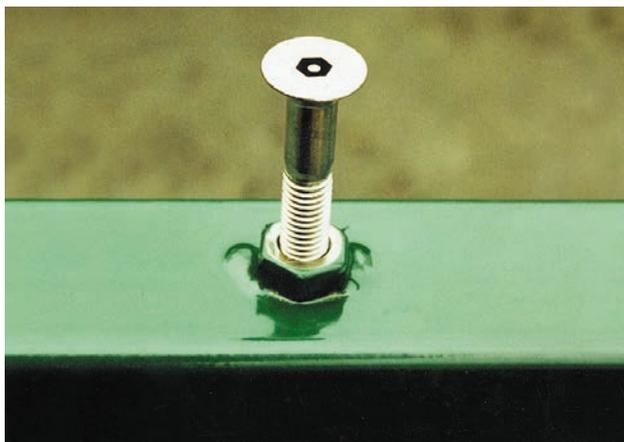
For full specifications of the options for castings see page 17

Polyboard

For full specifications of this material see page 72

Fastenings

Almost all our products use stainless steel fastenings in their construction, which immediately distinguishes them from the products most other manufacturers offer. This is an ideal material for external environments, because it is strong, does not rust and will look good indefinitely. In addition to being made from stainless steel, most of the fastenings we use have pin-in-socket tamper resistant heads on them (either as standard, or as an option). This makes them easy to undo for maintenance purposes, because you are supplied with the special key required, but difficult for vandals to tamper with. Many of our installation kits can now be specified with pin-in-socket fastenings as an option.



Stainless Steel Pin-in-Socket Fastening

Delivery and Assembly

All goods are delivered with full assembly and installation instructions. Items delivered unassembled come with all necessary fastenings and the special keys required. Delivery is normally made using our own vehicles and personnel, to reduce the risk of damage to goods in transit. It is the customer's responsibility to ensure that there is suitable access to enable these vehicles to get to the stores or off-load points.

Assistance is often required with off loading, particularly with large or awkward products, and customers are always phoned in advance of delivery to make the necessary arrangements.

Delivery periods vary, but are typically four to six weeks. Standard products are often available in small quantities at very short notice, if required.



Standard Colour Options

All Metal Finishes



Blue RAL 5013



Blue B.S. 20C40



Blue RAL 5017



Green B.S. 14C39



Green B.S. 14C40



Green RAL 6029



Maroon RAL 3004



Red RAL 3001



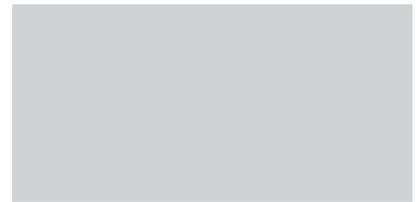
Yellow RAL 1028



Brown B.S. 08B29



Black



Silver Grey RAL 9006

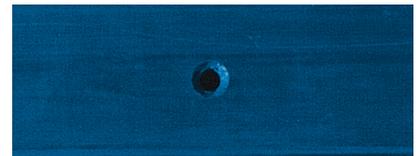
Junior Range Softwood Boards



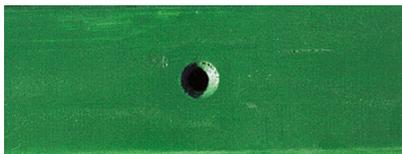
Brown



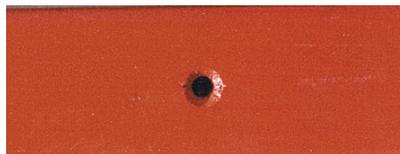
Yellow



Blue



Green



Red

Colours shown here are reproduced as accurately as printing limitations permit. Please note however that when applied to a large item, sited outside, colours will appear significantly lighter in tone than the small samples above.

Streetmaster

STREET FURNITURE





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The mark of
responsible forestry

