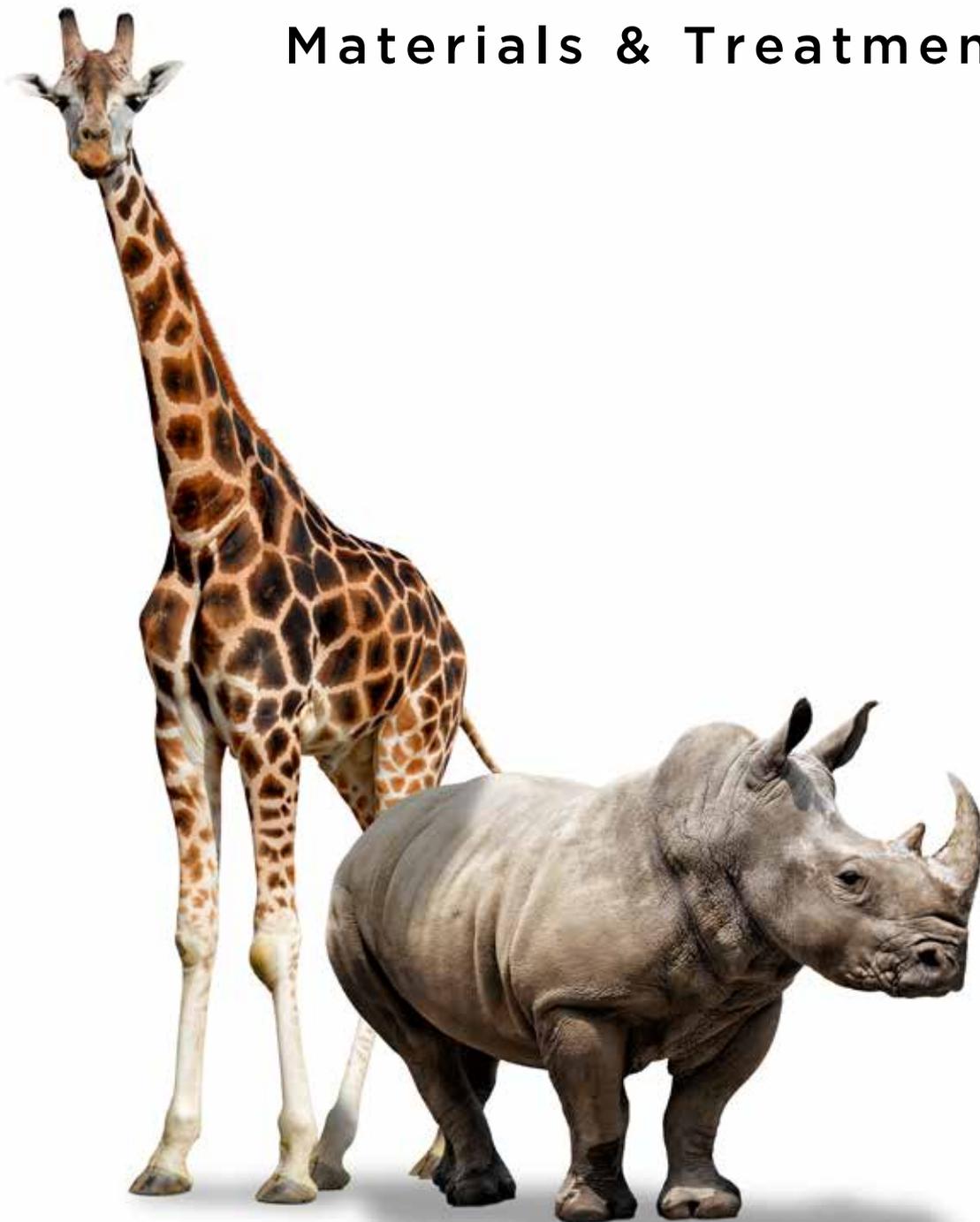


# Materials & Treatments



50

1971 - 2021

sineu

graff

STREET FURNITURE



# MATERIALS



**The street furniture signed Sineu Graff takes pride every time in exceeding the functional needs that it aims to satisfy. Sturdiness, sustainability and comfort form their basic contract. However, just like their shapes and colours, the materials in which they are made are selected for their capacity to make benches original and convivial, tables nice to look at, and litter bins that strike the right balance between sober and discreet. More than conveying simply pleasant sensations, these essential structures of urban design tell stories, pass on emotions, and give both hedonistic and civic ideas.**

Naturally, this poetic vision of street furniture in no way relegates to the back seat all the practical advantages offered by the right choice of material for a given shape. Whether this concerns guaranteeing the maintainability of a structure or making it easier to clean.

Trust in the quality of its materials and the techniques employed in their implementation allow Sineu Graff to guarantee the sustainable supply of its spare parts over a 10-year period, as well as the quality of treatment of its products long-term and their optimum adaptation to the environment.



Find this information  
on our website

A close-up photograph of a wood surface showing concentric growth rings. The word "WOOD" is printed in a bold, white, sans-serif font in the center of the image.

**WOOD**

## Decorative arts?



**Warm and natural, wood, a "zero emission" material imbues our furniture with comfort and a polished appearance. The contact with wood and its scent procure a pleasant feeling for users and ensure the comfort of the time they spend in public spaces.**

With several species available (ash, larch or exotic), our wood is exclusively harvested from sustainably-managed forests. Supply is responsible and reasoned insofar as renewal of the forest and its healthy state are guaranteed

Wood is preferably PEFC™-certified to ensure it is of local origin, and our exotic wood is FSC®-certified or complies with the procedure involving due diligence in accordance with the EUTR (European Union Timber Regulation).

# Sineu Graff is FSC® and PEFC-certified

**According to the FSC's vision, the planet's forests must comply with the social, ecological and economic rights and needs of today's generation, without compromising those of future generations. Our company is certified FSC and PEFC™ and is governed by the FSC control chain. The FSC control chain is the path taken by products from the forest, or, in the case of recycled materials, from the recovery of materials, to the point of sale of the product.**



La marque de la  
gestion forestière  
responsable



Our suppliers procure the necessary materials according to yearly estimated needs, with priority given to short circuits:

- **Ash, European origin (mainly France)**
- **Larch (European origin)**
- **Exotic wood, African origin**

Once supplied, the wooden parts (sharpened) are fully transformed on our Alsace production site in our joinery workshop. Our wood stain processing line implements the most efficient industrial technologies and produces parts with top-quality finishes. Special attention is paid to optimisation of output and, as such, to wood resource consumption.

Wooden parts are delivered, as applicable, either untreated or treated by wood stain in aqueous phase, applied on our integrated processing line by a continuous automatic process: application of a fungicide insecticide primer by flow coating, application of two wood stain coats in aqueous emulsion (solvent-free), applied by electrostatic process and followed by steaming.

> Please refer to the chapter  
'Wood treatment' on page 22.

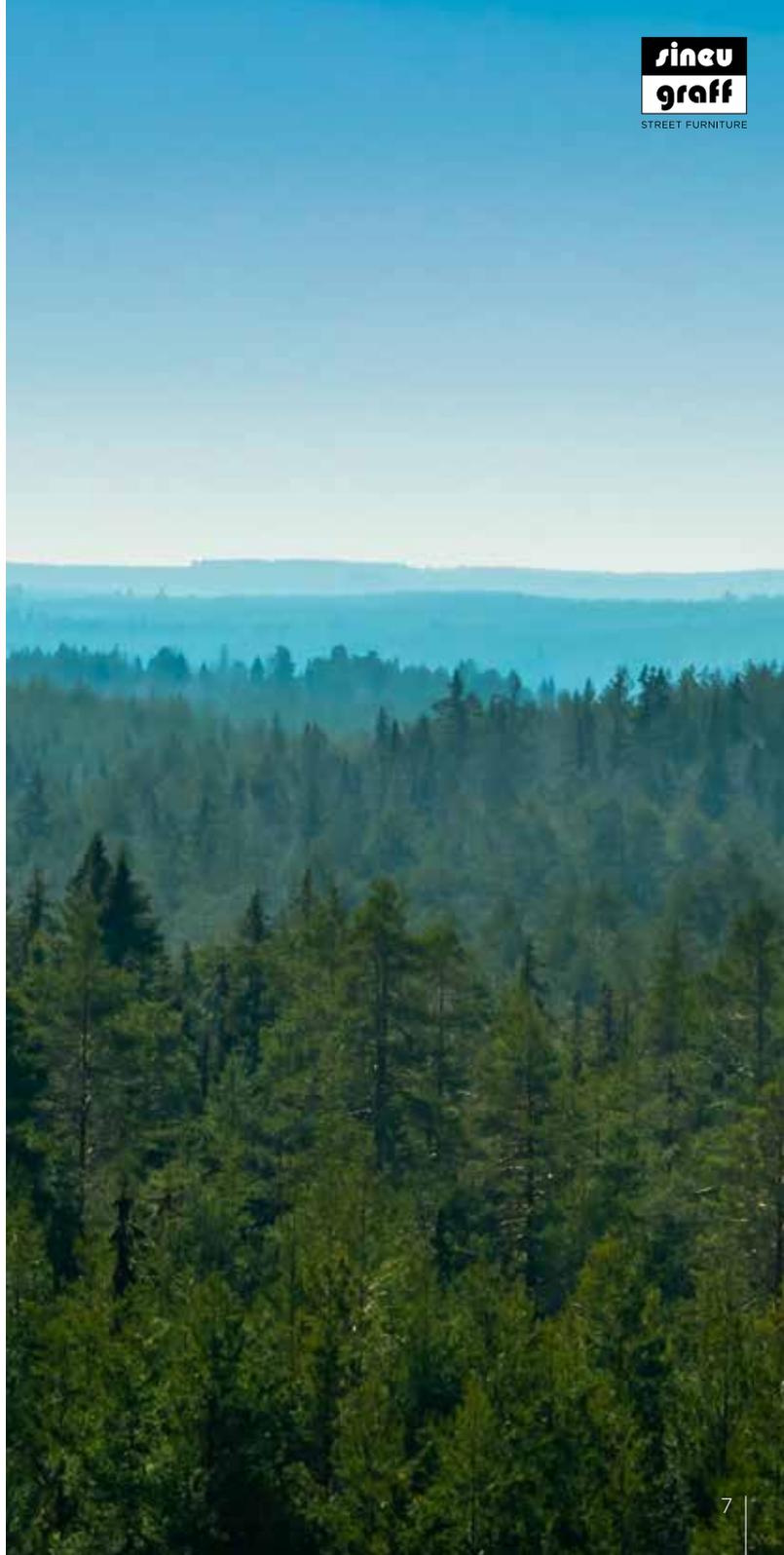




**Optimised use:**

We have opted for standard sections usable on a number of furniture. They are machined in our workshops, thus allowing us to reuse the shavings of a specific wood section, which then become raw materials for a smaller section.

This internal recycling allows optimised use of this valuable material. Final waste (chips, sawdust and wood dust) supplies our biomass boiler, the energy of which is used to heat all our industrial buildings.





## European wood

### **Like Ash.**

### **This European hardwood belongs to biological class II.**

Hard but supple, this wood is machined in Sineu Graff's joinery workshop in order to give the desired shape to parts according to the type of furniture, as well as for:

- Its outstanding resistance makes ash a solid wood for street furniture.
- It undergoes treatment applied on the Sineu Graff site in Alsace (see page 25 - wood treatment) that protects it against attacks from wood-decay fungi and woodworm.
- Maintain ash in its natural version and enjoy its beautiful grains. It can be treated in autoclave in use class 3.1 to protect it against fungi and pests.

## Exotic hardwood

### Like Bossé.

### This exotic wood is of biological class III.

Sineu Graff chose Bossé for several reasons:

- Its rapid growth, strong density, sturdiness and stability, its natural rot-proof properties, and absence of nodes and counter-threads make this wood an ideal material for street furniture.
- Its low sensitivity to hygrometric variations; it is an homogeneous and resistant wood.
- A very low scrap rate (waste rate), allowing use of nearly 60% of the log.
- Its quality of finish, which guarantees furniture its high aesthetic quality.
- These trees offer the advantage that their trunk is optimised at a rate superior to that of ash. We use 80% of the tree, compared to only 40% for ash.
- It can be maintained in its natural version (without wood stain) or be stained in one of the colours proposed by Sineu Graff.

Sineu Graff has chosen these species for the qualities described above and because they possess a reliable and sustainable source of supply that does not threaten the integrity of the forest.





## Larch: European hardwood

**This species has a high environmental value. For outdoor use, Larch requires no treatment as it is naturally durable and resistant to external aggressions (insects, fungi). So to speak, it is an “organic” wood.**



Larch is a European wood that grows in the mountains. It is appreciated for its aesthetic and mechanical properties. Insensitive to cold, it can withstand large temperature variations. Its density also ensures it outstanding impact strength and wear resistance, making it an ideal wood for street furniture.

Belonging to biological class 3, it can be used untreated, in its natural state, as it is naturally durable and resistant to degrading agents (insects, fungi) when it is not in contact with the ground.

This species is attractive to the eye, with coloured hues (shades of yellow, orange and brown). Used without protection, the larch is known to assume a silver grey patina, of the most beautiful effect.

We use larch in our furniture collections, as this species retains its properties for decades, without need for any particular finishing treatments or chemical processes.

This choice is also in keeping with our sustainable development approach: The Larch is a fast-growing species, thus allowing responsible, controlled management of forests.



## Bamboo

**It has been dubbed “the green steel” for its outstanding physical qualities: the density of bamboo guarantees its hardness and thus its durability. It is also rot-proof and impermeable. It belongs to use class 4.**



Bamboo contracts and swells less than most solid wood species, thus offering an extremely stable solution for outdoor spaces. These properties allow its use in furniture that requires hardly any maintenance (except for joint cleaning).

These reasons have led Sineu Graff to opt for this alternative out of a selection of street furniture in its offer.

Sineu Graff has also chosen bamboo for its ecological qualities. Its rapid growth (up to 1 metre a day), its vigorous regeneration capacity, and its yield per hectare, make bamboo an interesting and renewable ecological alternative.

### **The ecological advantage**

During its growth, bamboo absorbs more CO<sup>2</sup> than that released during its transformation. Solid bamboo products are thus guaranteed CO<sup>2</sup>-neutral throughout their life cycle.



# STEEL

## Bullet-proof vest?

**A material used for its solidity, its pliability, and its capacities for transformation (folding, bending, cutting, rolling) and for assembling (welding, bolting), steel guarantees furniture the highest degree of solidity.**

Our company purchases 700 tonnes of steel per year to carry out all the steps for transformation of steel sheets and profiles in our plant. Sineu Graff works with internationally renowned steel suppliers. Its traceability system allows it to trace back down the supply chain through to the casting number.

Sineu Graff employs people from different metalwork sectors, all experts in their fields, for multiple transformation and machining steps: laser cutting, welding, folding, bending, rolling, using numerical control machines,



**According to the type of furniture, the steel used by Sineu Graff is grade S235 or S355.**

For transformation of flat sheets, Sineu Graff chooses a steel grade S235, appreciated for its outstanding welding properties, its flatness and elasticity, vital for quality transformation.

- Our company also transforms drawn bars, making it possible to produce wire, round-drawn and even IPE products to cover a variety of applications: from litter bins to larger and more structural products such as Mouv'roc®.
- Last but not least, transformation of tubes for our protective barriers and the gymnastic apparatus in the Sport & Health range takes place by tube cutting or by tube laser cutting.

In our manufacturing process, Sineu Graff's Methods department provides vital assistance: it studies the templates required for implementation of all the mechanically welded parts. These templates are then entirely manufactured in our plant.

Following manufacturing of furniture in crude steel, the steel parts are then treated either by galvanisation or by electrolytic galvanising to ensure optimum rust protection and sustainable performance. As applicable, by powder coating as per our Powder Blast process, carried out on our Sineu Graff site in Alsace: a process which, after cleaning and shot blasting, consists in coating parts with a zinc-enriched epoxy powder primer and an oven-baked polyester powder coat.

> To find out more about our  
Powder Blast treatment, page 29.

# The steel grades used by Sineu Graff

## Stainless steel

**Stainless steel exhibits outstanding corrosion-resistance and does not rust-up, thus making it highly durable. Stainless steel is also used for its aesthetic appearance.**

As there are many stainless steel grades, the term “stainless steel” must always be associated with its grade (304, 316, 316L or other).

Sineu Graff has chosen grade 316L, called the food grade, over grade 304, in order to ensure optimum durability of its furniture even in harsh environments (saline, wet, etc.). Molybdenum, a component present in stainless steel grade 316, exhibits better corrosion protection in difficult environments.

The stainless steel grade 304 can be used both indoors and outdoors, but must not be installed in “polluted” atmospheres (saline or chlorinated environments, industrial zones, ports, swimming pools, chemical industries, stables, etc.). In these cases, the structure must be located more than 50 km from the coast, and the moisture content must remain low

After manufacturing, our 316L grade stainless steel components are treated according to a complete finishing process (passivation, shot-peening or electropolishing).

> **To find out more, go to page 31.**

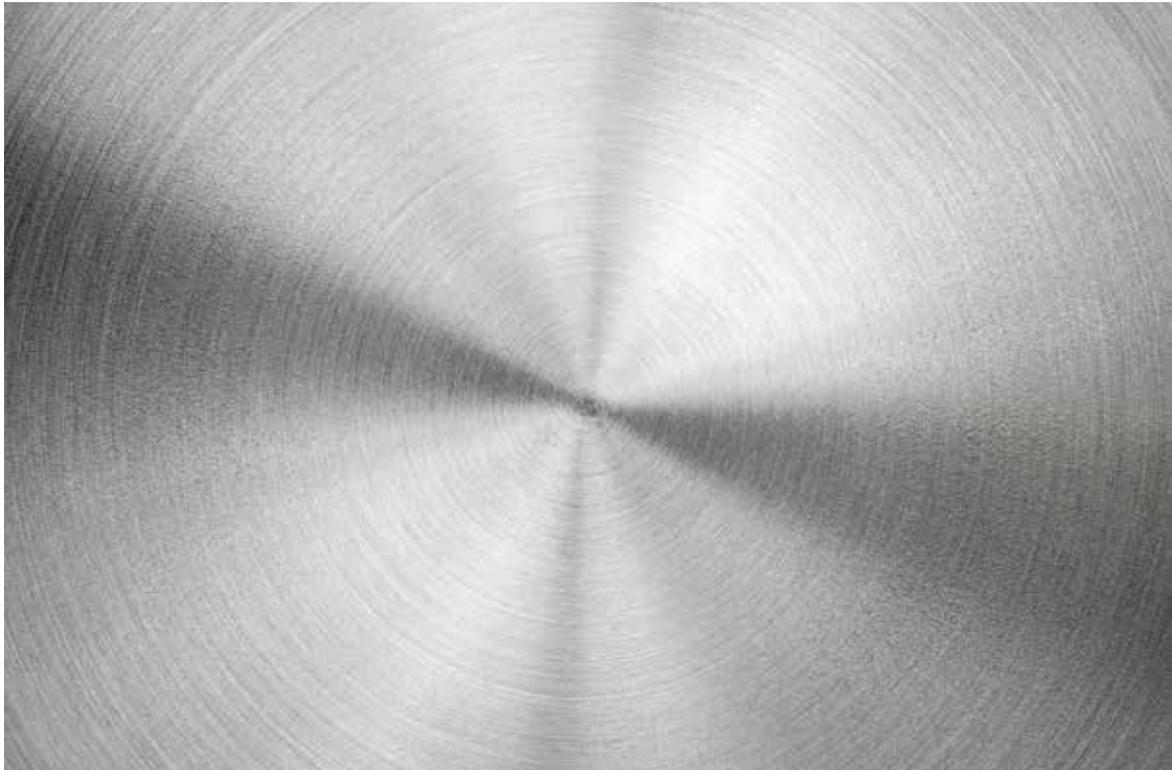


## 316L grade stainless steel

- Food grade.
- L actually means “Low carbon”. The special feature of this variant is that it facilitates TIG and MIG hot welding (special welding irons for stainless steel) -> better finished aspect.
  - Enhanced corrosion resistance.
  - Recommended in applications where exposure to salt or water is a problem (wetlands, seashores).
  - Requires little maintenance, thus allowing fast payback of the high purchase price, as stainless steel needs no additional paint coat.

## 304 grade stainless steel

- Durable and corrosion-resistant in dry environments, more than 50 km from coastlines or marine environments.
- Less resistant in saline or chlorine environments.
- Requires little maintenance, thus allowing fast payback of the high purchase price, as stainless steel needs no additional paint coat.



## Corten steel®

### Weathering steel

**Street furniture made of weathering steel, often called Corten steel® gives the structure a look that is both modern and natural.**

Corten steel® is a steel made up of different alloys such as copper (Cu), chromium (Cr), nickel molybdenum (Ni Mo) and phosphorus (P). This combination increases corrosion resistance by the formation of a self-protective coat known as “patina” with the properties of an S355 grade steel.

Normally obtained thanks to transformation factors such as climatic factors (rain, wind, temperature variations, etc.), based on a crude steel, the patina can be obtained by accelerated processes. **Sineu Graff proposes a variety of treatments to effectively meet the aims of your structure.**

Corten steel is appreciated for its resistance and longevity and will positively impact the urban landscape for a long time.

**A variety of finishing options are available for weathering steel products.**

## Crude Corten® steel

To let rusting take place naturally. The products leaving the plant are similar to crude steel sheet products, called black steel sheet, which may be a source of surprise on their installation.

## Rusted Corten® steel

### Application process

Accelerated rusting by fine spraying of an acid solution in controlled industrial closed room, in a number of passes, carried out by a duly authorised partner in terms of regulations. This rust activator accelerates the oxidation phenomenon on the metal in order to obtain the fine rusting effect desired. It ensures even, homogeneous and regular oxidation throughout the metal surface.





## Rusted, varnished Corten® steel

### Application process

Accelerated rusting by fine spraying of an acid solution in controlled industrial closed room, in a number of passes. It is completed by application of a specific transparent varnish in the form of a finishing powder in our powder coating booth, followed by oven-baking. This colourless varnish stabilises rusting, thus preventing rust run-outs and protecting the floor covering (paving, asphalt, deactivated concrete, etc.) and avoiding friction stains on clothes, for example.

These treatment options are ideally reserved for large parts, decorative elements that require a smart appearance, and parts in contact with users.



# Cast steel

**Cast iron is the ultimate durable material, offering possibilities for the most varied shapes as well as a material effect provided by its texture. It ensures the very high aesthetic quality of the Sineu Graff furniture.**

Of Flake Graphite (FG) quality, mostly used for the legs of benches and seats or of Spheroidal Graphite (SG) quality for the Pebbles urban vase for example, cast iron remains the ultimate durable material, with a life span of as long as several hundred years.

As cast iron is a material that rusts on the outside, it normally undergoes a paint treatment, consisting in shot blasting to guarantee flawless surface preparation, application of a zinc-enriched epoxy powder primer, followed by an oven-baked polyester powder finishing coat providing the hue, texture and shine, according to our Powder Blast process.

> To find out more about our Powder Blast treatment, see page 29.



**Sineu Graff offers a selection of street furniture with seats made of recycled reinforced plastic. This material is the ideal solution for spaces, in which street furniture is frequently used by the public and that do not require any particular maintenance.**

The raw material of the recycled reinforced plastic is entirely made of a recycled plastic material (HDPE, LDPE and PP) originating from Western European countries.

The mass-dyed slats are produced by extrusion. They are reinforced by a zinc-plated steel core to ensure optimum performance and stability of street furniture seats. The resulting profiles are cut-to-length, and the wood shavings recycled.

Available in five colours (sand beige, mineral grey, black, green, brown quartz). You already have some Sineu Graff benches and want to extend their life span? Choose kits to replace the wood slats or small wood squares with recycled reinforced plastic components.

**Colours available for recycled reinforced plastic:**



**Green**



**Brown quartz**



**Sand beige**



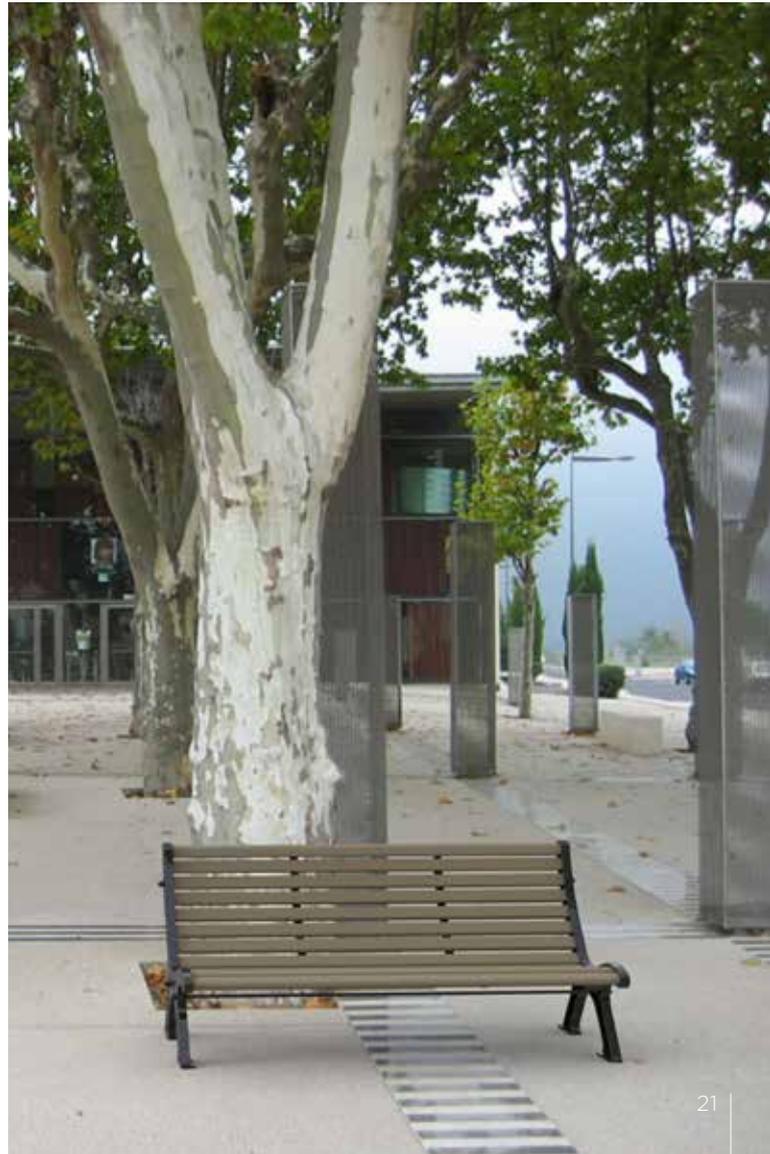
**Black**



**Mineral grey**



## Recycled Reinforced Plastic



## White PVC

**Sineu Graff proposes a selection of street furniture with seats made of reinforced thermoplastic profiles (extruded PVC reinforced inside by a rot-proof wood section).**

This material is the ideal solution for spaces subjected to high exposure to UVs or salt spray environments (or specific constraints). Its lightweight allows it to satisfy the permissible load limits in some spaces (e.g. in underground car parks) and those of temporary and event-related installations, by simplifying handling. Bolstered by its street furniture experience, Sineu Graff has specially developed a vandalism-proof sealing plug fitted to the end of the profiles.

Available in RAL 9010



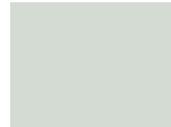
# HPL

**Sineu Graff uses duromer high-pressure laminated panels (HPL panels). They are manufactured in laminate presses under high pressure and at high temperature. Twice-hardened acrylic polyurethane resins guarantee them outstanding protection against the elements and UVs.**

Panels are resistant to scratches, impacts, and solvents, and offer outstanding dimensional stability. This material is very easy to clean.

The HPL panels are delivered coloured by the supplier. SINEU GRAFF proposes a selection of colours.

Fire-resistance rating: Non-flammable,  
M rating M1, Euroclass: B-s2, d0



**Birch grey**  
Ref. 0741 NT



**Medium grey**  
Ref. 0747 NT



**Terracotta**  
Ref. 0661 NT



**Dark red**  
Ref. 0689 NT



**Yellowish green**  
Ref. 0725 NT



**Atlantis**  
Ref. 0056 NT



**Atlantic**  
Ref. 0717 NT



**Gentian Blue**  
Ref. 0237 NT



**Polar Oak**  
Ref. 5171 NT



**Tyrol Pine**  
Ref. 0803 NT



**Enigma**  
Ref. 0923 NT

A close-up, slightly blurred photograph of a row of wooden planks hanging from a rack. The planks are made of light-colored wood and are suspended by dark brown cords. The perspective is from a low angle, looking down the length of the planks, which creates a strong sense of depth and repetition. The lighting is warm and soft, highlighting the natural grain of the wood. The background is out of focus, showing more of the same setup.

# TREATMENTS

## Wood treatment and working

For its furniture, Sineu Graff has chosen to use two wood species: ash, mainly of French or European origin, and exotic wood coming from West African forests. As an alternative, on a selection of products, other species are available such as larch and bamboo.

A warm and natural material, wood imbues our furniture with comfort, a pleasant feel, and a polished appearance.

In its natural version, exotic wood requires no surface treatment thanks to its natural strength and rot-proof properties if it has no contact with the ground.

This wood can also be stained and dyed for aesthetic reasons.

However, ash must undergo surface treatment to protect it against fungi and pests: autoclave treatment if the wood remains in its natural version, and treatment by wood stain application if the wood is dyed.

The wood stain treatment is carried out on our automatic lacquering line in our workshops in Alsace.



Find this information on our website.

## The colours proposed:

Sineu Graff proposes a wide choice of colours for wooden parts. As standard, the following are proposed: natural or light oak, walnut, mahogany, and certain opaque wood stain colours as per the colour chart below.



**Natural stained ash**



**Mahogany stained ash**



**Walnut stained ash**



**Autoclaved ash (Link range) untreated | without wood stain**



**Natural stained exotic wood**



**Mahogany stained exotic wood**



**Walnut stained exotic wood**



**Exotic wood untreated | without wood stain**



**Untreated larch without wood stain**



On request, other colours in the RAL colour chart can be applied to wooden parts.

### Application process

For optimum protection of wooden parts (ash or exotic wood) against fungi and pests, we apply on our wood a finishing wood stain in aqueous phase after application of a dyed impregnation primer.

This wood stain in aqueous emulsion is not harmful to the environment. It contains less than 1.5% of organic solvent, unlike wood stains with traditional organic solvents that contain more than 50%.

It is applied on fully machined parts, and evenly on all the faces and surfaces of the part.

The process is robotised and completely automatic. In particular, this application technique ensures constant finish quality and even thickness throughout the surfaces, irrespective of the part to be treated.



## **The process is divided into three steps: preparation, impregnation and finishing**

### **1. Material preparation:**

Wood treatments are carried out ideally on dry woods with 14% moisture, free from dust, traces of contact with skin, deposit due to storage and/or surface moisture.

This is why all our wooden parts undergo very light surface sanding at the start of the treatment circuit.

### **2. Application of a primer by impregnation in the flow coat (by sprinkling)**

This primer is created by sprinkling (flow coating technique). This coat is said to be the “primer” or the “sealing” layer. It facilitates the adhesion of the wood stain. It is dyed and contains fungicide and insecticide components.

### **3. Application of a finishing wood stain in two coats**

Once the primer has been dried by hot air percussion, the finishing wood stain is applied by a spray robot by electrostatic process in a 4-spray gun fully automatic booth.

The wood stain applied is a high viscosity aqueous phase emulsion allowing application of a very thick coat without run-out of 160 WFT microns. This is followed by steam-drying at 40° for 50 min at 30% of hygrometry.

A 2<sup>nd</sup> wood stain coat is applied in the same conditions.

## **Treatment of ash in Autoclave**

To retain the appearance of the ash grains and ensure as natural an aspect as possible, ash can be treated by autoclave. This treatment ensures the durability of the wood and protects it against attacks by fungi and woodworm.

The fungicide and insecticide product is applied in an empty pressurised autoclave, as preventive treatment as per standard NF B 50-105-3. The principle of this process is to fill all the wood cavities with a preservative product. First, the wood is exposed to a very high vacuum, after which the treatment product is added, with the vacuum maintained; it penetrates deeply into the wood by overpressure. This treatment is particularly recommended for wood used outdoors, without permanent contact with water. When treated in this way, ash exhibits the properties of wood in use class 3.1. It is certified CTB-B+ (a mark issued by the FCBA, which attests to treatment application quality).

The product applied is colourless. It ensures that the wood retains all its aesthetic properties. However, this treatment does not block the natural ageing of wood in terms of aspect, or the deposit of lichen or micro plant organisms.



## Treatment of steel parts

**Zinc-coating and painting by oven-baked polyester powder as per our Powder Blast process.**

**At SINEU GRAFF, painting of steel parts is systematically preceded by a zinc-coating rustproof treatment when the parts are intended to be painted, or by galvanising when the parts are left untreated.**

### **Zinc-coating of steel parts prior to painting**

Steel parts require both rustproofing and preparation for paint application.

This preparation consists in electrolytic galvanising of the metal parts making up our street furniture after manufacturing, carried out by our regional partners.

The prepared parts are then painted as per our unique Powder Blast process, carried out on our powder coating line installed in our workshops.



## Painting as per our Powder Blast process

The POWDER BLAST process: a series of four operations in a continuous process ranging from preparation of parts to their painting and consisting in:

- Alkaline degreasing, followed by rinsing and meticulous drying, in order to wash and degrease the parts
- Shot blasting of the parts in order to treat the fillet welds and make the part surfaces homogeneous and rough to ensure good mechanical adhesion of the powder paint
  - Application of an epoxy powder anti-corrosion primer, zinc-enriched, polymerised by gelification at 120° (thickness 60 Qm)
- Application of a polyester finishing powder after cooling, giving the chosen colour, polymerised by oven treatment at 180° for 40 min (thickness 60 to 80 Qm).

Application of powders (primer and finishing) takes place by electrostatic process to ensure homogeneous and continuous distribution of powder on the part.

## Advantages

- Paint adhesion enhanced by impeccable preparation of surfaces, obtained by alkaline and then mechanical stripping of parts, consisting in degreasing immediately followed by shot blasting.
- An optimum state of cleanliness:
  - Absence of dust, calamine, oil or grease, acid residues
  - Absence of micro-cracks on the welds
  - Degassing of parts from foundries
- Mechanical adhesion of paint by obtaining a surface condition of homogeneous rugosity for all parts.
- A highly resistant rustproof treatment applied on parts by:
  - A double powder coat, rustproof and finishing, applied on all parts, further to surface preparation.
  - .- Enhanced adhesion of the finishing coat thanks to gelification of the 1st epoxy base coat, allowing interpenetration and thus excellent adhesion of the polyester finishing coat on the epoxy base.
- An excellent finish quality due to the choice of zinc-coating, offering a perfectly smooth surface without the orange peel effect of hot-dip galvanising.
- Through the electrostatic processes for application of powders used, monitored by computer, guarantee:
  - homogeneity of paint thickness
  - perfectly smooth, stretched surfaces.



### **Longevity**

Outstanding wear resistance: Salt spray tests conducted (ISO 7253 with injury) show excellent long-term paint resistance (1, 000 hours without notable corrosion propagation). Quick drawing tests (ISO 6272-1) confirm the excellent adhesion of paint even when subjected to strong distortions.

### **Environment**

An environmentally-friendly treatment:

- Our POWDER BLAST process uses no products harmful to the environment or to our employees. The treatment contains no acids or heavy metals.
- The powder residues are retrieved by approved bodies, who recycle them for reuse in other activities.

### **Hot-dip galvanising of steel parts intended to remain crude**

**Galvanising protects steel from corrosion, thus guaranteeing it a remarkable life span, while offering a neutral visual aspect that bestows on steel all its nobility. This treatment consists in covering a part with a zinc coat (thickness 60 Qm) by immersion in a molten zinc bath at 450°C.**

Sineu Graff uses this treatment on some ranges such as, for example, the Link galvanised steel structure or other components that do not need to be painted.

### **Treatment of stainless steel parts**

After manufacturing, our 316L grade stainless steel components are treated as per a complete finishing process consisting of:

- passivation, aimed at removing all foreign elements (oils and greases, carbon steel particles) as well as eliminating any thick oxide layers that may have formed during welding operations (coloured coat, calamine, et.)
- followed by shot peening, a surface treatment by impact process consisting in projecting glass beads on the part surface, in order to strip it without damaging it. The resulting surface is satin-gloss finished
- or electropolishing, which is an electrochemical surface treatment process by which the surface layer metal is removed by anodic dissolution, giving an homogeneous glossy finish to the material.

A close-up photograph of a hand holding a paintbrush with a white handle and a metal ferrule, applying a light-colored substance to a wooden surface. The brush has natural bristles. The wood grain is visible, and the background shows more wooden planks.

# MAINTENANCE

# In situ maintenance of stained furniture

**Wood stains on furniture are subject to various aggressions, whether climatic, due to impacts, or simply as a result of friction.**



Find this information  
on our website.

It is important to repair these impacts and cracks as quickly as possible to avoid deterioration of the protective coat by the humidity seeping into the wood, which is then no longer protected. Otherwise, the infiltrated water lifts up and detaches the wood stain film.

## **Climatic aggressions**

Sun and moon UVs and rain damage the wood stain film, make it brittle, heat it, and degrade its structure over time.

There is then a risk of humidity penetrating into the micro-cracks created, and detaching the protective film.

## **Mechanical aggressions**

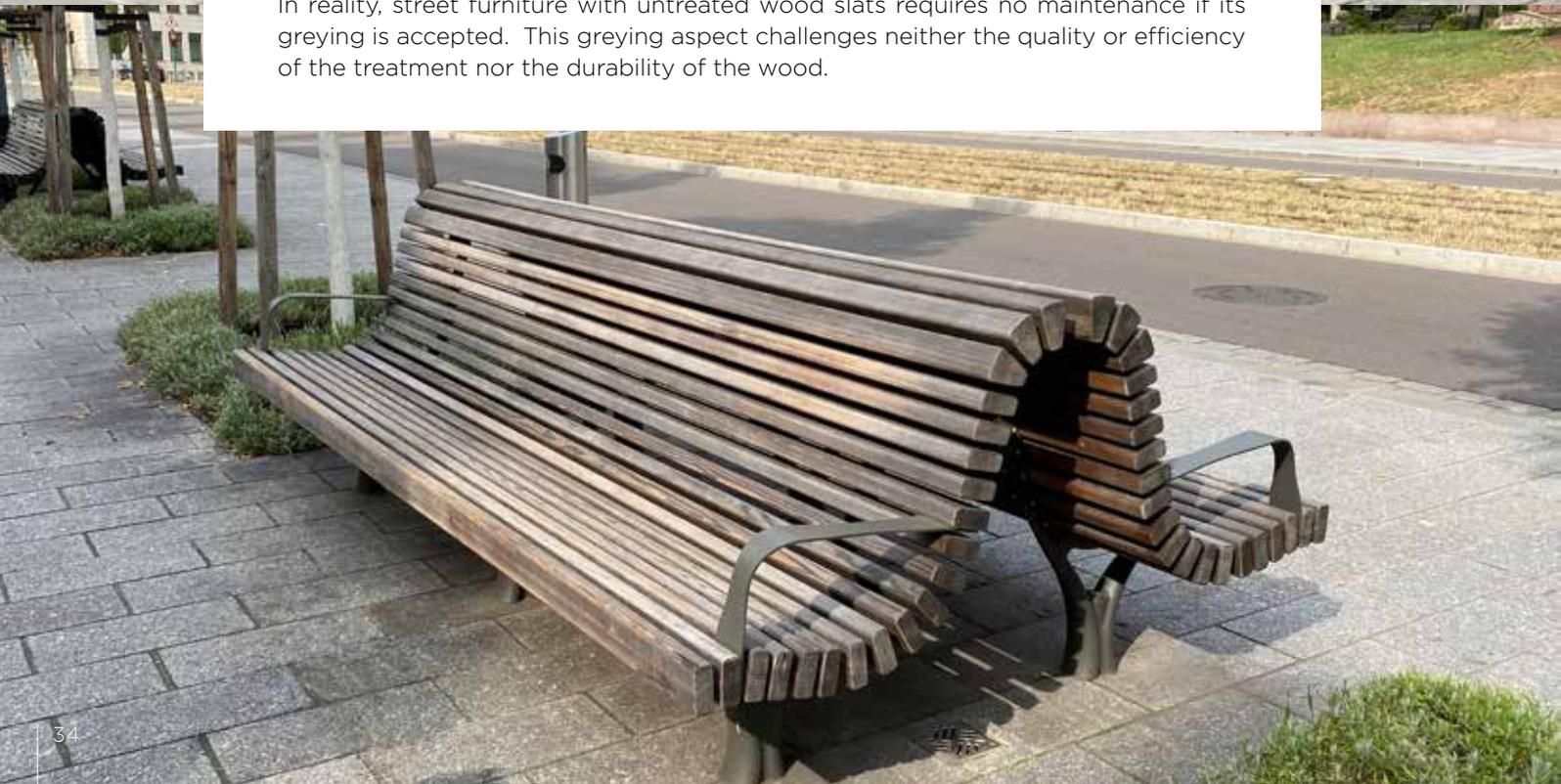
A variety of mechanical aggressions can occur. Contacts and friction, not to mention vandalism (knife cuts, stone throwing, etc.) or impacts with vehicles.

Such aggressions cause greater, deeper damage and leave the wood unprotected in some places. The film will be detached and flake off around the damaged areas. It will thus naturally age in these places, resulting in aesthetic disorder.



### **The greying of untreated wood: a natural phenomenon**

In reality, street furniture with untreated wood slats requires no maintenance if its greying is accepted. This greying aspect challenges neither the quality or efficiency of the treatment nor the durability of the wood.



# In situ maintenance of steel & cast iron furniture

## Two types of in situ maintenance prevent defects on Sineu Graff products:

1. The first consists in regular application of the cleaning operations.
2. The second consists in repairing all the damage caused by external factors such as vandalism, accidents, climatic conditions, etc.

### 1. Cleaning

All Sineu Graff steel furniture is rustproof-treated by our Powder Blast process.

Nevertheless, we recommend regular cleaning operations, especially for furniture located under trees or particularly exposed to climatic conditions, with additive-free water and/or damp non-abrasive brushes.

If you use high pressure water equipment to clean your street, we recommend that you do not clean street furniture with overly high pressure but rather use a water jet at normal pressure and, in all cases, at a minimum distance of 30 cm.

These operations aim at detaching any foreign particles that could damage the product protective coat.

These operations must be carried out more frequently in extreme conditions (seashore, presence of sand, road salt, etc.).

### 2. Repair

In the event of surface contamination on steel or cast iron parts, or of impacts that have damaged the paint coat, Sineu Graff recommends repairing the damaged area according to the following procedure:

1. Clean the surfaces and areas affected using a metal brush
2. Apply a rustproof treatment of the cold galvanising type
3. Repaint the area concerned by spraying with a Sineu Graff spray-paint can applied as per the RAL / AkzoNobel tones to be ordered in the original tone.

**This maintenance operation must be carried out in dry weather, at a temperature higher than 12° and lower than 25°**

# Maintenance of stainless steel furniture

**Normally, SINEU GRAFF's stainless steel furniture requires no particular maintenance, the exception being the presence of rust deposited by migration from a nearby source of rust.**

In this case, this rust can be eliminated by industrial passivation.

Consult us.

# Renovation in our plant of Sineu Graff street furniture

**We recommend that all renovations and general rehabilitations be carried out in our workshops as per the following procedure:**

- After reception of the furniture in our workshops, disassembled and packaged by you.
- Disassembling the various components of the product,
- Sorting the components to determine what can and what cannot be reused.

## **For reusable components:**

- Stripping by pyrolysis of all the steel or cast iron elements making up the product,
- Electrolytic galvanising for steel parts
- Repainting just as for parts newly produced by our Powder Blast process.

## **For non-reusable components:**

- Completing with new parts for the models still available.

## **The advantage of renovation or general rehabilitation in our workshops:**

- The advantage of this operation is that it results in the re-installation of renovated or recomposed furniture that benefits from the same surface treatments as our new products.
- We breathe new life into old products.
- This increases furniture life span and goes one step more towards sustainable development, without wasting material.



ស៊ីម៉ង់ត៍  
ព្រះសីហនុ

# Renovation

## Breathe new life into your furniture at minimum cost.

If you need to deal with severely damaged parts (black or grey areas) and you do not want to sand the wood to white (down to the untreated wood), you will need to use covering/opaque products to mask the defects of the original wood stain coat.

However, there is always a variation in colour between products applied in the plant, and by brush on site. This is because this curative maintenance wood stain is opaque and no longer transparent. We thus recommend testing to validate the result of the maintenance operation with expectations.

Following very light surface sanding and cleaning, the opaque wood stain is applied by brush in two coats, in situ. As the product is in aqueous phase, no particular worksite protection need be taken, apart from discouraging use of the furniture during the product drying time, which is very short (1 to 2 hours). This maintenance operation must be carried out in dry weather, at a temperature higher than 12°C and lower than 25°C.

**This maintenance wood stain is proposed by SINEU GRAFF and is available in 2.5l or 5l canisters.**

**Choose out of three colours according to the wood species of your furniture\*:**



### Natural

**Ash:**

Ref: D.LAS.REPARATION FR

**Exotic wood:**

Ref: D.LAS.REPARATION EXO



### Mahogany

**Ash or exotic wood:**

Ref: D.LAS.REPARATION ACAJOU



### Walnut

**Ash or exotic wood:**

Ref: D.LAS.REPARATION NOYER



Bench renovation with opaque wood stains.

**Before**

**After**

## Repair

**Are your benches scratched or have a slight impact on one or more slats?**

**Sineu Graff has the solution!**

Give a new glow to your furniture with our wood stain spruce-up solution.

Mix & Go is a kit intended for worksites. When installing or transporting, small scratches or impacts may damage the wood stain film.

The affected parts must then be treated immediately to prevent the defect from worsening.

Sineu Graff supplies a ready-to-use bottle with the right wood stain colour for your furniture, together with a surface sanding pad.

Before applying the Mix & Go kit, lightly sand to increase adhesion (grain 150).

Then apply the wood stain by brush in one or two coats according to the deterioration observed.

A word of warning: there is always a small variation in colour between products applied in the plant and by brush.



## Strip replacement kits for public benches in particular...

With the strip replacement kits, Sineu Graff proposes a sustainable solution aimed at extending the life span of your products.

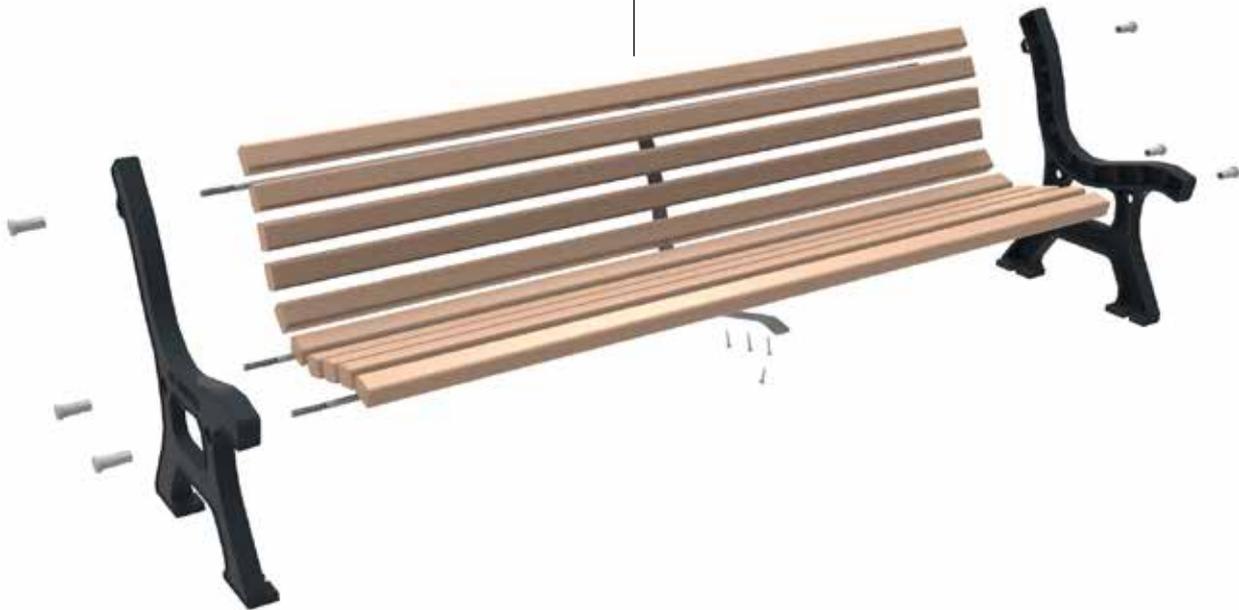
Should your benches show signs of fatigue such as worn or damaged slats, as well as for regular maintenance of furniture, choose the Sineu Graff replacement kits. For your benches, type Confort 1 and Confort 2, Centaure Classique or Evolution, Royal or Expression, you can replace the slats or small squares (as per the model) by elements made of untreated or stained exotic wood, stained ash or reinforced recycled plastic (a choice of colours): brown, beige, grey or black)

These kits contain bench slats as well as the appropriate screws and bolts and, when applicable, metal joining reinforcements. Consult us for more details.

## Spare parts in general...

Sineu Graff controls its entire manufacturing process. This flexibility allows us to deliver you with the spare parts you need to upkeep your Sineu Graff furniture, whether the structures come from recent or older ranges.

Slats, small squares, legs, armrests, locks, lids, liners, etc., the spare parts for all our furniture ranges (benches, litter bins, plant structures, protective & safety furniture, and sport & health furniture) are available for sale to extend the life span of the objects installed in your living spaces.



A close-up, high-angle photograph of a stainless steel trash can lid. The lid is circular and features a central circular vent with a metal grate. The grate has a central rectangular opening and is surrounded by horizontal slats. The lid is secured with two screws. A clear plastic liner is visible inside the trash can. The lighting is dramatic, highlighting the metallic texture and the circular shape of the lid.

# WARRANTIES

## Is there a trap?



Find this information  
on our website.

**10**  
years

**2**  
years

**10**  
years

**5**  
years

**10**  
years

**The Sineu Graff furniture and spare parts benefit from warranties that vary according to the models and under the following conditions:**

### **Wooden parts**

Parts are guaranteed against decay in normal conditions of use (excluding splits, cracks, vandalism, impacts). The warranty concluded depends on the wood species. Please consult us.

### **Wood treatment**

This treatment is guaranteed in normal conditions of use (excluding vandalism, impacts).

### **Metal parts**

These parts are guaranteed against perforating rust in normal conditions of use (excluding vandalism, impacts).

### **Steel treatment**

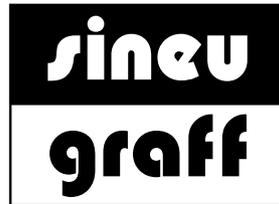
This treatment is guaranteed for two years in normal conditions of use (excluding vandalism, impacts).

### **Spare parts**

We guarantee the supply of spare parts if a product is no longer manufactured. Our permanent spare parts stock means we can deliver you within 10 days on receipt of your order.

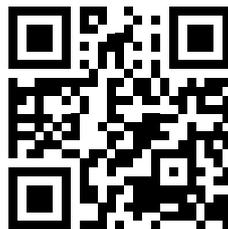
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1971 - 2021



STREET FURNITURE

DESIGNED AND MANUFACTURED IN FRANCE



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