Stainless Steel Solutions for Building and Construction
Aperam is a global leader in stainless steel solutions, offering a multitude of effective, innovative and environmentally friendly products - each tailored to meet our customers’ expectations.

Aperam stainless: a stainless steel solution for every customer.

With the Uginox brand, we offer the market’s most comprehensive and innovative range of surface finishes ready to meet a variety of expectations.

We are widely recognised by project managers, developers, architects and contractors for our long standing expertise in the construction sector.

We anticipate the new requirements of our end users and, thanks to our global presence, we support our customers with everything from technical assistance to product co-development.
A 100% recyclable product

- Stainless steel is the “green material” par excellence and is infinitely recyclable. Within the construction sector, its actual recovery rate is close to 100%.
- It is environmentally neutral, inert and, when in contact with elements such as water, it does not leach compounds that might modify its composition. These qualities make it a material that is ideally suited to such building and construction applications as roofs, facades, rainwater recovery systems, domestic water pipes and swimming pools, as well as bridges and pedestrian bridges.
- Stainless steel’s longevity fulfils the requirements of sustainable construction.
- A suitable choice in terms of grade, surface finish, installation and maintenance guarantees the user an unrivalled service life.
- Construction components made of stainless steel come ready to install, thus reducing pollution (noise, dust, etc.). Furthermore, during demolition, these components can be salvaged for re-use in recycling, thus adding even more value.
Stainless steel, the perfect combination of performance and aesthetics for your projects

**Design**

Our wide range of grades and surface finishes means you can choose a stainless steel that’s right for your exact needs. All of our stainless steel options are corrosion resistant, meaning they can be adapted to any given atmospheric environment to provide your building with both continuity and sustainability.

Furthermore, our various stainless steels have excellent physical properties, even at very low temperatures. On the one hand, this allows you to use thinner pieces, providing for a lower weight per m² and, on the other hand, you can use very long pieces in single sections.

Our products are transformed and easily installed using traditional tools and machinery.

**Economic performance**

Designing a building with stainless steel also means cost efficiency - especially when you consider the final cost versus the longevity of the structure.

This is the result of stainless steel’s exceptional durability and almost non-existent need for maintenance.

This price stability, especially with our ferritic grades, as well as the cost of transformation and installation, is comparable to other traditionally used metals, giving stainless steel a unique competitive advantage.

**Aesthetics**

Stainless steel gives architects a level of creative freedom in design that is rarely matched. Architects can choose from our impressive range of thicknesses and wide range of surface finishes - from the more dull to the colourful and even the most brilliant.

Stainless steel allows for the creation of complex shapes and pairs well with other materials such as glass, wood, stone, etc.
1. OUR SERVICES AND STAINLESS STEELS

At Aperam, our service doesn’t stop with the sale. Each of our products is backed by our industry-leading commitment to service and support that last throughout your project.

Technical Partnership

The sustainability of our products is heavily dependent on how they are used. For example, a building’s exposure and its surrounding environment will all impact the stainless steel. To ensure our customers get the most out of their product, our business engineers regularly advise owners, contractors and installation companies.

Our “Stainless Workshops” – operational workshops located at our Isbergues site – train your colleagues and operatives in the use of stainless steel. Our experts, located throughout Europe, provide training in schools of architecture and design, in high schools and vocational schools specialising in building and construction.

Product innovation

In addition to our highly competent and dedicated stainless steel research centre, Aperam Stainless Europe can also call upon the services of all of the Aperam Group’s research facilities.

We are working in conjunction with material manufacturers to enhance the performance of our steels by combining them with other materials, such as glass.

Logistics

Our dedicated European logistics platform, located in Isbergues, ensures a service level adapted to your requirements.

Our stainless steel range for the building and construction sector is available from stock in standard formats or in made-to-measure products. A team of logistic experts dedicated to quality of service and on time delivery is at your disposal.

Proximity to our customers

Aperam Stainless Europe has the advantage of its expansive sales network – 16 Service Centres and sales offices throughout Europe, each of which offers quality service and proximity to those involved in the construction sector.

What is stainless steel?

Steel is an alloy of iron and carbon.

Stainless steels are steels containing less than 1.2% carbon and at least 10.5% chromium, along with other alloying elements.

The chromium content provides stainless steel with its corrosion resistance, enabling the natural and continuous development of a chromium oxide surface layer.

This oxide, referred to as the “passivation layer”, provides the stainless steel with lasting protection against all types of corrosion. This passivation layer is naturally self-healing when in contact with humidity or water.

Stainless steels’ corrosion resistance and mechanical properties can be further enhanced by adding other elements, such as nickel, molybdenum, titanium, niobium, manganese, etc.

KARA is Aperam’s brand of ferritic stainless steels. Unlike other stainless steels, the KARA range does not contain nickel and is thus immune from the erratic price fluctuations of this alloying element.

KARA’s key advantage is that its prices are more stable over time: a strong argument in the construction sector, where project costs and economic design are key elements.
Composition of stainless steels

<table>
<thead>
<tr>
<th>Composition</th>
<th>Reaction of steel and stainless steel in contact with air humidity or water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium ≥ 10.5%</td>
<td>Steel: Formation of iron oxide (rust)</td>
</tr>
<tr>
<td>Iron</td>
<td>Stainless steel: Formation of chromium oxide</td>
</tr>
<tr>
<td>Carbon ≤ 1.2%</td>
<td></td>
</tr>
</tbody>
</table>

The various categories of stainless steel suitable for building

Austenitic S300

<table>
<thead>
<tr>
<th>Properties (typical values)</th>
<th>304/304L</th>
<th>316L</th>
<th>K30</th>
<th>K36</th>
<th>K41</th>
<th>K44</th>
<th>DX2205</th>
<th>DX2304</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>790</td>
<td>790</td>
<td>770</td>
<td>770</td>
<td>770</td>
<td>770</td>
<td>780</td>
<td>780</td>
</tr>
<tr>
<td>Expansion in mm/m per 100°C</td>
<td>1.60</td>
<td>1.60</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
<td>1.30</td>
<td>1.30</td>
</tr>
<tr>
<td>Melting point in °C</td>
<td>1450</td>
<td>1440</td>
<td>1500</td>
<td>1480</td>
<td>1505</td>
<td>1495</td>
<td>1460</td>
<td>1465</td>
</tr>
<tr>
<td>Modulus of elasticity en MPa x 10^3 (20°C)</td>
<td>200</td>
<td>220</td>
<td>220</td>
<td>220</td>
<td>220</td>
<td>220</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Yield strength in MPa</td>
<td>300</td>
<td>300</td>
<td>330</td>
<td>370</td>
<td>310</td>
<td>380</td>
<td>620</td>
<td>550</td>
</tr>
<tr>
<td>Tensile strength in MPa</td>
<td>650</td>
<td>620</td>
<td>500</td>
<td>520</td>
<td>480</td>
<td>520</td>
<td>840</td>
<td>730</td>
</tr>
<tr>
<td>Thermal conductivity in W/m.K</td>
<td>15</td>
<td>15</td>
<td>25</td>
<td>30</td>
<td>25</td>
<td>23</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Mean elongation in %</td>
<td>54</td>
<td>52</td>
<td>26</td>
<td>29</td>
<td>30</td>
<td>28</td>
<td>29</td>
<td>30</td>
</tr>
</tbody>
</table>

Ferritic S400: our KARA ferritic stainless steel solutions

<table>
<thead>
<tr>
<th>Properties (typical values)</th>
<th>&lt;0.1 %</th>
<th>10.5-30 %</th>
<th>0-4.5 %</th>
<th>1-7 %</th>
<th>0-4 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molybdenum, aluminium, copper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chromium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Duplex

Stainless steel - the choice material

To guide your selection, this table compares the characteristics of the principle materials used in building, taking into account your constraints.

<table>
<thead>
<tr>
<th>Properties (typical values)</th>
<th>304/304L</th>
<th>316L</th>
<th>K30</th>
<th>K36</th>
<th>K41</th>
<th>K44</th>
<th>DX2205</th>
<th>DX2304</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>718</td>
<td>893</td>
<td>2.70</td>
<td>2.70</td>
<td>7.70</td>
<td>7.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expansion in mm/m per 100°C</td>
<td>2.20</td>
<td>1.68</td>
<td>2.35</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point in °C</td>
<td>418</td>
<td>1083</td>
<td>660</td>
<td>1600</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modulus of elasticity en MPa x 10^3 (20°C)</td>
<td>120</td>
<td>120</td>
<td>69</td>
<td>210</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yield strength in MPa</td>
<td>110/150</td>
<td>190</td>
<td>45</td>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tensile strength in MPa</td>
<td>750/190</td>
<td>260</td>
<td>120</td>
<td>330</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermal conductivity in W/m.K</td>
<td>110</td>
<td>328</td>
<td>201</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean elongation in %</td>
<td>40</td>
<td>25</td>
<td>27</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Reference of a type of zinc, copper, aluminium or carbon steel, traditionally used in building. These values are only an indication.
2. OUR SURFACE FINISHES

A wide choice of surface finishes

In order to meet the diverse needs of the many styles of architecture, we offer a comprehensive range of surface finishes, from matt to bright, that can be achieved on various grades of stainless steels. All that is required is to identify the grade of stainless steel and the surface finish.

The grade of stainless steel

Corresponds to a steel product characterised by its chemical composition. This composition has a direct influence on its resistance to corrosion and its mechanical properties.

Surface finishes

Surface finishes are the result of mechanical or physico-chemical treatment to the surface of the steel. Surface finishes can be reproduced on different grades of stainless steel.

Uginox Patina

Uginox Patina is a tin-plated stainless steel available in two grades of ferritic stainless steel: K41 (0.4 mm and 0.5 mm thick) and K44 (0.5 mm thick), the latter of which can meet even the most aggressive of all atmospheric conditions.

These are coated with tin by electroplating on both sides. Tin acquires a patina over time, giving it a living character and a matt grey appearance, which is particularly popular. Tin reduces the natural shine of stainless steel and facilitates its integration into any location.

In addition, Uginox K41 and K44 are easily soldered and can be worked with in winter temperatures.

Our recommendation

The surface finish Uginox Patina is suitable for standing seam, self-supporting and cleated seam roofing, as well as for roofing accessories. However, we do not recommend the use of tinned stainless steel for vertical fascias or soffits where the desired aesthetic may be delayed due to a lack of natural rain washing.
<table>
<thead>
<tr>
<th>Surface Finish</th>
<th>Description</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uginox Top</td>
<td>Matt finish</td>
<td>Roofing - Facade - Interior</td>
</tr>
<tr>
<td>Uginox Bright</td>
<td>Particularly bright and uniform surface with low roughness</td>
<td>Roofing - Facade - Interior</td>
</tr>
<tr>
<td>Uginox Sand</td>
<td>Sand blasted finish</td>
<td>Facade - Interior</td>
</tr>
<tr>
<td>Uginox Mat</td>
<td>Slightly bright surface with low roughness</td>
<td>Roofing - Facade - Structure - Interior</td>
</tr>
<tr>
<td>Uginox Rolled-On</td>
<td>Fine polished look with the qualities of a rolled-on finish</td>
<td>Roofing - Facade - Interior</td>
</tr>
<tr>
<td>Uginox Leather</td>
<td>Leather look pattern</td>
<td>Facade - Interior</td>
</tr>
<tr>
<td>Uginox Linen</td>
<td>Linen patterned finish</td>
<td>Facade - Interior</td>
</tr>
<tr>
<td>Uginox Méca 8 ND®</td>
<td>Non-directional, super mirror polished finish</td>
<td>Facade - Interior</td>
</tr>
<tr>
<td>Uginox Squares</td>
<td>Chequer pattern finish</td>
<td>Facade - Interior</td>
</tr>
<tr>
<td>Uginox Coloured</td>
<td>A range of coloured stainless steels: gold, champagne, blue, bronze, black</td>
<td>Facade - Interior</td>
</tr>
<tr>
<td>Uginox Lozenge</td>
<td>Lozenge pattern finish</td>
<td>Facade - Interior</td>
</tr>
</tbody>
</table>

**Our recommendation**

It is important that the choice of surface finish be compatible with the environment. An identical grade with low roughness, like Uginox Bright, Uginox Mat and Uginox Méca 8 ND, are the finishes most resistant to corrosion because their low roughness means contaminants cannot easily attach themselves. For this reason, they are considered as "self cleaning". Our finishes are uniform and can be reproduced, especially those achieved by etching.
### Chemical Composition

<table>
<thead>
<tr>
<th>Commercial Designations</th>
<th>Standards</th>
<th>Chemical Composition in % (typical values)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ASTM</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Designations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type</td>
<td>UNS</td>
</tr>
<tr>
<td><strong>Austenitics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>304</td>
<td>304</td>
<td>S30400</td>
</tr>
<tr>
<td>304L</td>
<td>304L</td>
<td>S30403</td>
</tr>
<tr>
<td>316L</td>
<td>316L</td>
<td>S31603</td>
</tr>
<tr>
<td><strong>Ferritics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K30</td>
<td>430</td>
<td>S43000</td>
</tr>
<tr>
<td>K36</td>
<td>436</td>
<td>S43600</td>
</tr>
<tr>
<td>K41</td>
<td>441</td>
<td>S43932</td>
</tr>
<tr>
<td>K44</td>
<td>444</td>
<td>S44400</td>
</tr>
<tr>
<td><strong>Duplex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DX 2205</td>
<td>2205</td>
<td>S32205</td>
</tr>
<tr>
<td>DX 2304</td>
<td>2304</td>
<td>S32304</td>
</tr>
</tbody>
</table>
Grade selection depends on atmospheric exposure

The choice of stainless steel grade must take into account the environment in which the material will be used. Our experts are available to help you in the selection process.

<table>
<thead>
<tr>
<th>Commercial designations</th>
<th>Internal environment</th>
<th>External environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Benign, all levels of relative humidity</td>
<td>Corrosive*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Austenitics</strong></td>
<td>304/304L</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>316L</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Ferritics</strong></td>
<td>K30</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>K36</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>K41</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>K44</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Duplex</strong></td>
<td>DX 2205</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>DX 2304</td>
<td>✔️</td>
</tr>
</tbody>
</table>

✔️ Type suited to the environment.
▲ Type whose selection will be determined after consulting us.
✘ Type not suited to the environment.

*In particular, any environment or atmosphere containing corrosive substances or halogens: chlorides, fluorides, etc.
4. OUR SOLUTIONS FOR CONSTRUCTION SYSTEMS IN ROOFING

Affording freedom of form and appearance, stainless steel roofing blends into all environments and is suited to all styles of architecture, both new and renovation projects. Long lasting, easy to maintain and recyclable, it is also the sustainable material of choice. Our stainless steels are suited to the various construction systems presented below. For each technique, our experts are available to advise and guide you in your choice.

Stainless steel advantages

> Stainless offers a wide variety of shapes and finishes, perfectly adapted to all types of installation techniques (batten rolls, standing seams, self-supporting trays) and to both new and existing structures.
> Compared to other building materials, stainless steel distorts the least, enabling it to be used in long single pieces (from 1 to 20 meters depending on different national guidelines). Furthermore, the number of solders or expansion joints is reduced, allowing for quick installation whilst reducing the risk of leaks.
> Stainless steel’s excellent mechanical resistance permits the use of thin gauges (0.4-0.5mm) for a considerable material gain.
Les terrasses de Corseaux, Vevey - Switzerland
A&C Architecture + Consultant, Philippe Schmutzler © A&C
Executed using grade K44 with Uginox Patina finish

Lesen schule, Freiburg im Breisgau - Germany
Werner Sandhaus Architekten © Peter Rokosch
Executed using grade K44 with Uginox Patina finish

Boğhindu Farmhouse House extension - Bogindhu, Aberdeenshire - United Kingdom
Room Architects © N. Rigden
Executed using grade Aperam 304 with Uginox Top finish

St Barnabas Church, Edington - United Kingdom
Brownhill Hayward Brown © Terence Smith Photography
Executed with Uginox Patina and Uginox Top finishes

Custom Home, La Jolla, San Diego - USA
Daniel Schmidt © Enduringmetal
Executed using grade K44 with Uginox Patina finish

Professional school, Dingolfing - Germany
Schöner & Wagner Architekten © Aperam
Executed using grade 304 with Uginox Top finish

Lessing schule, Freiburg im Breisgau - Germany
Werner Sandhaus Architekten © Peter Rokosch
Executed using grade K44 with Uginox Patina finish

St Barnabas Church, Edington - United Kingdom
Brownhill Hayward Brown © Terence Smith Photography
Executed with Uginox Patina and Uginox Top finishes

Custom Home, La Jolla, San Diego - USA
Daniel Schmidt © Enduringmetal
Executed using grade K44 with Uginox Patina finish

Professional school, Dingolfing - Germany
Schöner & Wagner Architekten © Aperam
Executed using grade 304 with Uginox Top finish
Collection and disposal of rain water

Roofing accessories are the ideal complement to a stainless steel roof.

Take rainwater collection, for example. Stainless steel enables the manufacturing of gutters and downpipes in welded sections or in continuous lengths of up to 20 m (according to the width). This reduces the number of soldered joints needed, thus enhancing the rain water collection system’s integrity.

Stainless steel in thicknesses of 0.4 mm and 0.5 mm is easy to work, even in cold weather, and can be easily soldered in situ using tin solders.

Depending on component length, stainless steel can be folded in the workshop or on site using special tooling. The Uginox Patina and Uginox Top surface finishes are traditionally used for roofing accessories.
Roofing in mountainous regions

In mountainous regions, projects must take into account the range of surface temperatures, localised or distributed snow loads, the erosion caused by snow and ice movement and the risk of siphoning.

Our stainless steels are ideally suited to this type of climate as they offer:

- Excellent resistance to thermal shock.
- No embrittlement in very cold weather.
- Excellent mechanical strength, capable of withstanding heavy snow loads.

The standing seam roofing system is particularly well-suited for mountain buildings. The stable durability of stainless steel limits the number of transversal seams and weldings needed, which limits the risk of leaks and thus increases durability of your building projects.

The self-supporting roof system with a preformed stainless steel tray system is becoming an increasingly popular choice. This is both because its ease-of-use and installation make it a practical choice, and because its low cost per m² make it a smart economic choice.
5. OUR SOLUTIONS FOR CONSTRUCTION SYSTEMS IN FACADES

Our range of available thicknesses for each type of surface finish makes stainless steel the ideal choice for roofing and cladding.

The advantages of stainless steel

- Lighter envelope, thanks to high mechanical properties that permit a reduction of thickness.
- Compatible with all types of support: metal, all types of wood, etc.
- Possible association with construction systems giving thermal properties and/or acoustics.
- Response to national and European thermal regulatory requirements.
- More cost-effective than traditional products and techniques.
- All types of claddings are possible, both new and refurbished.
- In refurbishment, the stainless steel envelope transforms and modernises the building while respecting thermal regulations and omitting thermal bridges.
Congress and music hall, Strasbourg - France
Rey-Lucquet et associés Atelier d'Architecture / Dietrich Untertrifaller Architekten © Bruno Klomfar
Executed using grade 304L with Uginox Brushed finish
CTIES extension, Bussy-Saint-Georges - France
Antonini + Darmon © Pierre L'Excellent
Executed using grade 304L with Uginox Bright finish
School building Les Bartelottes, La Ville du Bois - France
Nomade architectes © P.H. Müller
Executed using grade 304L with Uginox Bright finish

University Library, Villetaneuse - France
Bernard Toppa © Luc Boegly
Executed using grade 304L with Uginox Bright finish

Résidence Hôtelière du Rail, Montparnasse railway station, Paris - France
aasb_agence d’architecture Suzel Brout
Executed using grade 304L with Uginox Mat finish

Anne de Bretagne School, Saint-Herblain - France
Philippe Gazeau © Philippe Ruault
Executed using grade 304L with Uginox Bright finish

Media library, Isbergues - France
Dominique Coulon © D. Coulon
Executed using grade 304L with Uginox Bright / Top / Mat finishes and K41 Patina
Aperam Gueugnon, new bright annealing RBB line - France
© Aperam
Executed using grade 304 with Uginox Bright finish

Centre de formation des apprentis hôteliers (CFA), Metz - France
Bernard Ropa © Luc Boegly
Executed using grade 304 with Uginox Bright finish

Residential building Nova ZAC Étoile, Strasbourg - France
© TOA
Executed using grade 304 with Uginox Bright finish

South Liverpool NHS Treatment Centre, Garston United Kingdom
MBLA Architects + Urbanists © Infinite 3D Ltd.
Executed using grade 316L with Uginox Bright finish

Apartment building “Lyon Islands”, Lyon - France
Architects: M & D. Fuksas © Erick Saillet
Executed using grade 304 with Uginox Bright finish

Glasgow Fort - United Kingdom
Cooper Cromar Architect © Aperam
Executed using grade 304 with Uginox Mat finish
6. STRUCTURES

Swimming pools

Today, our range of stainless steels cover all requirements relating to swimming pool applications: pools (including pool edges, overflow gutters, partitions, etc.), ladders, diving boards and starting platforms, along with the water distribution system.

The grades employed are principally austenitic (304, 316L). For certain applications in harsher environments, such as the thermal spa, one can employ grades with even higher properties, such as duplex (DX2205, DX2304).

The advantages of stainless steel

- Stainless steel is a durable material whose appearance does not deteriorate. It is also simple to maintain.
- Stainless steel withstands variations in operating temperature typical for this type of application.
- Unlike tiled pools, with stainless steel there is no risk of water leaking.
- The surface properties of stainless steel plates and the assembly style of the different pieces limit the risk of bacterial growth.
- A very effective alternative to the traditional solution. Although the capital costs may be higher, operating costs are lower. Over the facility’s full lifespan, the return on investment is attractive.

Bridges and pedestrian bridges

Stainless steel can be found in all or any part of a bridge or a pedestrian bridge. Its use is common in elements of protection - handrails and banisters - as well as in the wires on suspension bridges, cables and tie rods. It is also recommended for the deck and for anchor elements, including those built in marine and polluted atmospheres, the austenitic (304, 316L) or duplex (DX2205, DX2304) grades may be well-suited.

The advantages of stainless steel

- Corrosion resistant, with a very good mechanical resistance.
- Choosing stainless steel not only guarantees the quality of the structure, it also gives it the aesthetics of a work of art.
- Characteristics meet the strictest technical requirements: long range, lighter structures and seismic performance.
- Can be used bare, even in very aggressive environments such as seashores or industrial areas.
- Young’s modulus on density allows us to balance between lightness and rigidity and thus create fine and sleek structures.
- The benefits associated with the use of this material are also often the source of savings, which ultimately puts the cost into perspective.
7. INTERIOR DECORATION

Stainless steel applications are numerous, the only limitation is the imagination of the user.

- Interior decoration: elevators, metal furniture, store fixtures, decorative stands, bars, bank counters, entrances, collective kitchen furniture, etc.
- Urban furniture, signs, monuments, etc.
- Industrial screen printing, signs, corporate logos, etc.
City Garden hotel, Zug - Switzerland
EM2N Architekten AG / Ghisleni Planen Bauan GmbH © MZ - HMBLJEN AG
Executed using grade 304 with Méca 8 ND finish

Citylights - Tours du Pont de Sèvres, Paris - France
Dominique Perrault © Vincent Filion / Dominique Perrault Architecture / Adagp
Executed using grade 304 with Méca 8 ND finish

CRAV, Strasbourg - France
Bernard Ropa © Luc Boegly
Executed using grade 304 with Méca 8 NO finish

Musée des Confluences, Lyon - France
COOP HIMMELB(L)AU © Sergio Perone
Executed using grade 316L - microblasted finish
Aperam Stainless Europe

A tailor-made stainless steel solution for every customer

Ensuring proximity and availability to meet your needs is one of our commitments.

Through our European network of service centres and sales offices, you benefit from both the might of a large organisation and the responsiveness of a local unit matched to organisations of all scales.

Ready to start working on a tailor-made solution backed by an industry-leading commitment to long-term support? Contact one of our experts today to confirm your choice of stainless steel.

DISCLAIMER

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Back cover: Résidence Hôtelière du Rail, Montparnasse Bahnhof, Paris - France - aasb_agence d’architecture suzelbrout - Executed using grade 304L, with Uginox Mat finish

Coloured products and special finishes
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