



Our Portfolio of Stainless Steel
Solutions for the Building Industry



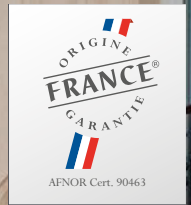
■ Aperam is a global leader in stainless steel solutions, offering a multitude of effective, innovative and environmentally friendly products - each tailored to meet our customers' expectations.

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.



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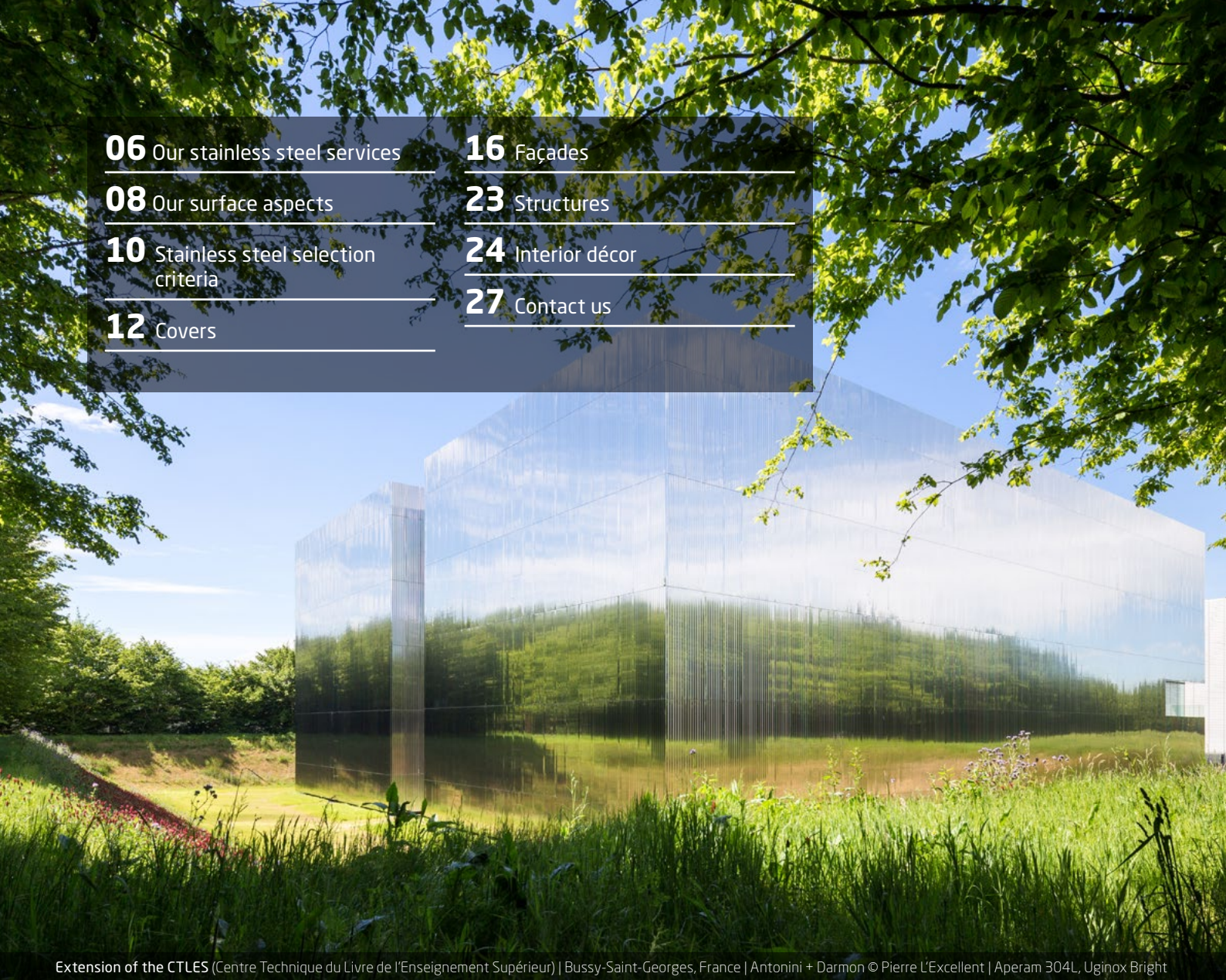
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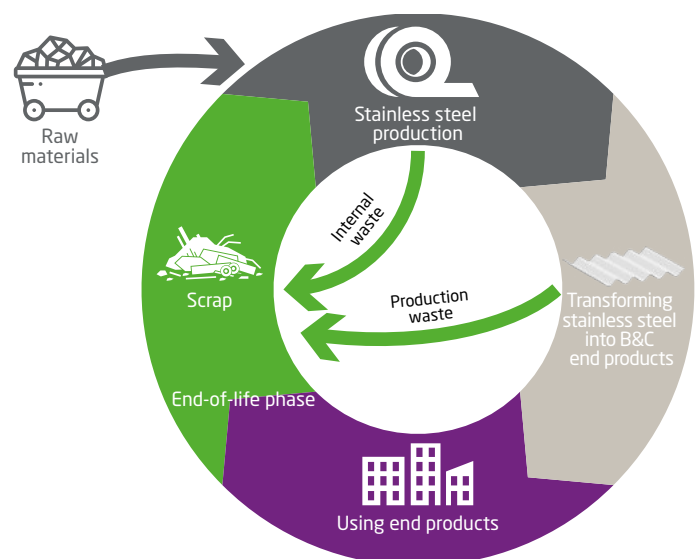
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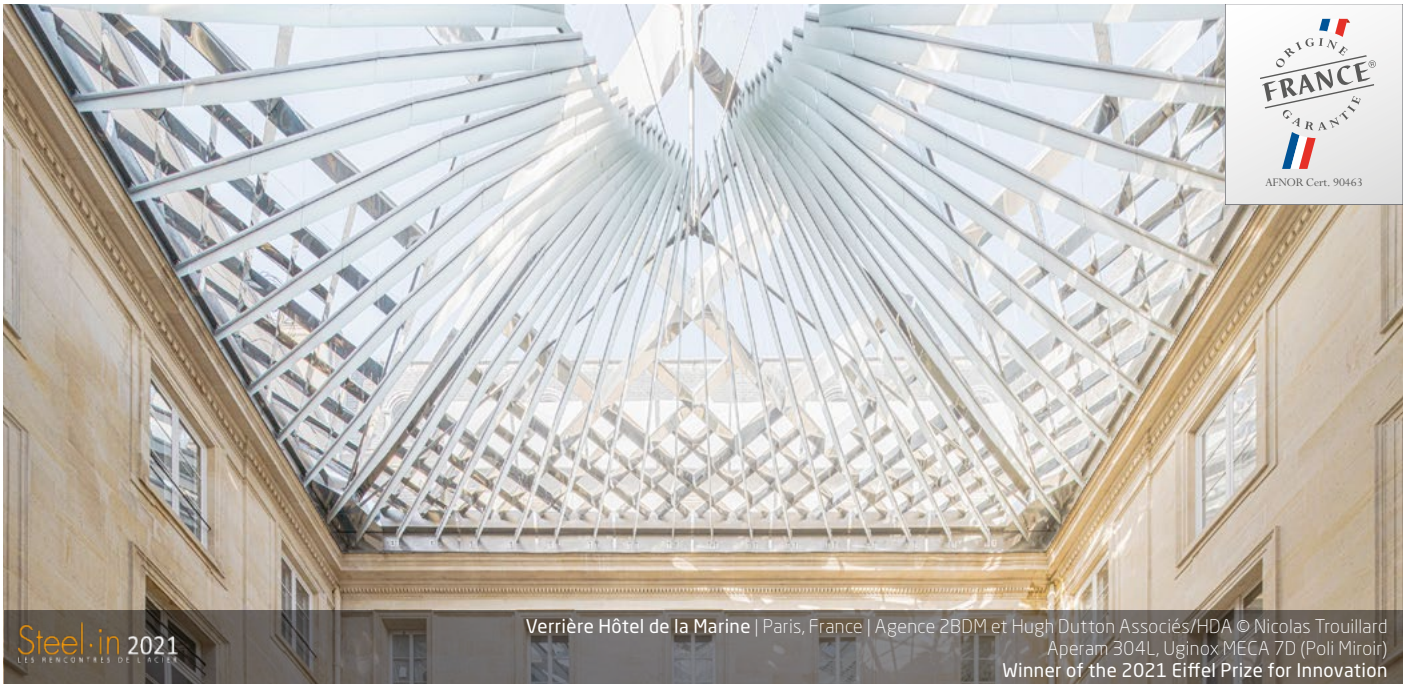


Extension of the CTLES (Centre Technique du Livre de l'Enseignement Supérieur) | Bussy-Saint-Georges, France | Antonini + Darmon © Pierre L'Excellent | Aperam 304L, Ugiñox Bright

■ A 100% recyclable product

- > Infinitely recyclable, stainless steel is the 'green material' par excellence. Within the construction sector, its actual recovery rate is close to 100%.
- > Stainless steel is environmentally neutral, inert and, when in contact with elements such as water, does not leach compounds that might modify its composition. These qualities make the material 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 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 or recycling, thus adding even more value.





Steel.in 2021
LES RENCONTRES DE L'ACIER

Verrière Hôtel de la Marine | Paris, France | Agence 2BDM et Hugh Dutton Associés/HDA © Nicolas Trouillard
Aperam 304L, Uginox MECA 7D (Poli Miroir)
Winner of the 2021 Eiffel Prize for Innovation

■ Stainless steel, performance and aesthetics for your projects



/ Design

Our wide range of grades and surface aspects means you can choose a stainless steel that offers the corrosion resistance needed to ensure the durability and longevity of your building, regardless of its environment.

Furthermore, our stainless steels have excellent physical properties, even at very low temperatures, enabling the use of low thicknesses at a low weight per m², along with the use of long elements. Our products can also be easily processed and installed using traditional tools and machines.

/ Economic Performance

A building designed and built with stainless steel is a cost-effective building.

Thanks to the exceptional lifespan of a stainless building, their almost non-existent need for maintenance and the ability to easily service them when issues do arise, using stainless steel ensures a low ratio between a structure's final and life-cycle costs.

/ Aesthetics

Thanks to a wide range of thicknesses and a portfolio of surface finishes that span the spectrum from mat to coloured to bright, using stainless steel enables a rarely equalled freedom of architectural creation and design. It also allows for the creation of complex shapes and can be easily combined with other materials, including glass, wood, stone and concrete.

1 - **Château des Rubins - Observatoire des Alpes** | Sallanches, France | FABRIQUES Architectures Paysages | Aperam 304, Uginox Rolled-On
2 - **Archives départementales du Nord** | Lille - France | de Alzua+ / ZigZag Architecture © Sergio Grazia | Aperam 304, Uginox Mat
3 - **Luma** | Arles, France | © Adobe Stock

1. OUR STAINLESS STEEL SERVICES

All our stainless steel products are backed by a range of unique services.

/ Technical Partnership

From the purchase decision to the implementation of your project, you always have access to Aperam's wealth of technical expertise. Our experts regularly advise owners, project managers and installation companies about selecting the right products based on a building's environmental exposure.

We also provide training on using stainless steel via our theoretical and practical Stainless Steel Workshops held at our Isbergues site, while our experts across Europe provide training at architectural and design schools, specialised vocational schools, and colleges and universities.

/ Product Innovation

Aperam Stainless Europe has a state-of-the-art research centre dedicated entirely to stainless steel.

Here we work with construction solution manufacturers to enhance the performance of our stainless steels by, for example, combining them with other materials like glass.

/ Our Logistics Platform

Aperam operates a dedicated logistics platform for the European building industry. Located in Isbergues, this platform ensures a level of service perfectly adapted to your needs. Standard sizes of our stainless steel products are kept in stock, while customised products can be ordered at any time. A team of logisticians dedicated to meeting deadlines and ensuring the highest level of quality is at your service.

/ Customer Proximity

Aperam Stainless Europe's expansive commercial network, which includes 16 service centres and agencies across Europe, means we are always in close proximity to the construction industry's leading players and enables us to offer an enhanced level of service.

■ What is stainless steel?

Steel is an alloy of iron and carbon.

Stainless steel is steel containing a minimum of 10.5% chromium, alloying elements and less than 1.2% carbon.

The chromium content allows for the natural and continuous development of chromium oxide on the material's surface, which gives stainless steel its unique corrosion resistant property.

This oxide, known as the 'passive layer', provides long-term protection against all types of corrosion.

The passive layer can also naturally regenerate on contact with the moisture found in the air or with water.

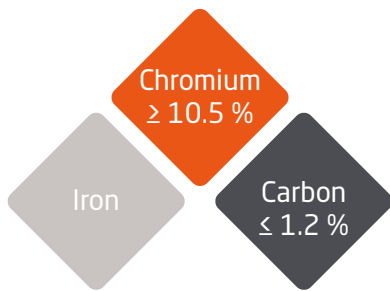
Stainless steel's corrosion resistance and physical properties can be further improved by adding other components, such as nickel, molybdenum, titanium, niobium, manganese, etc.



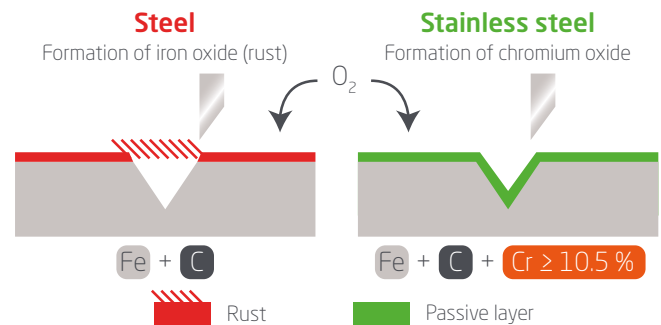
KARA is Aperam's brand of ferritic stainless steels. Unlike other stainless steels, the KARA range does not contain nickel and is thus not impacted by the erratic price variations associated with this alloying element.

KARA's long-term price stability makes it an attractive solution for the construction sector, where the costing and economic dimensioning of projects are always key factors.

■ Composition of stainless steel

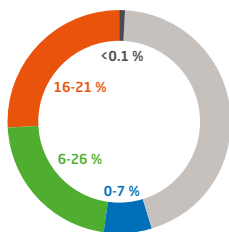


■ How steel and stainless steel react to air moisture and water

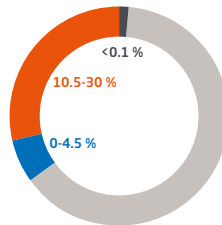


■ The different families of stainless steel suitable for the building industry

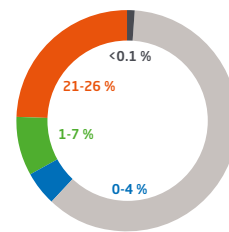
Austenitic S300



Ferritic S400
Our KARA® solutions



Duplex



○ Iron ○ Molybdenum, aluminium, copper ○ Nickel ○ Chromium ○ Carbon

■ Stainless steel, a material of choice

This table compares the characteristics of the primary materials used by the building industry and can help guide your choice within your constraints.

Characteristics (typical values)	304/304L	316L	K30	K36	K41	K44	DX2205	DX2304
Density	7.90	7.90	7.70	7.70	7.70	7.70	7.80	7.80
Expansion in mm/m at 100°C	1.60	1.60	1.10	1.10	1.10	1.08	1.30	1.30
Melting temperature in °C	1,450	1,440	1,500	1,480	1,505	1,495	1,460	1,465
Modulus of elasticity in MPa·10 ³ (20°C)	200	220	220	220	220	220	200	200
Yield strength in MPa	300	300	330	370	310	380	620	550
Breaking load in MPa	650	620	500	520	480	520	840	730
Thermal conductivity in W/m.K	15	15	25	30	25	23	16	17
Average elongation in %	54	52	26	29	30	28	29	30

Characteristics (typical values)	Zinc Cu - Ti ⁽¹⁾	Copper DHP Cu-b1 ¼ hard ⁽¹⁾	Aluminium EN AW 5005 ⁽¹⁾	Carbon Steel 1.0242 ⁽¹⁾
Density	7.18	8.93	2.70	7.70
Expansion in mm/m at 100°C	2.20	1.68	2.35	1.20
Melting temperature in °C	418	1,083	660	1,600
Modulus of elasticity in MPa·10 ³ (20°C)	80	120	69	210
Yield strength in MPa	110/150	190	45	250
Breaking load in MPa	150/190	260	120	330
Thermal conductivity in W/m.K	110	328	201	30
Average elongation in %	40	25	27	19

⁽¹⁾ Reference to a type of zinc, copper, aluminium or carbon steel traditionally used by the building industry. These values are given as an indication.



Le Berlingot - Office building | Nantes, France | dl-a, designlab-architecture sa © Patrik André | Aperam 304, Uginox Top, Bright, Mat and Brushed

2. OUR RANGE OF SURFACE FINISHES

■ A wide range of surface finishes

To suit all architectural styles, we offer a complete range of surface finishes – from mat to bright – available on different stainless steel grades.

A distinction must be made between stainless steel grade and surface finish:

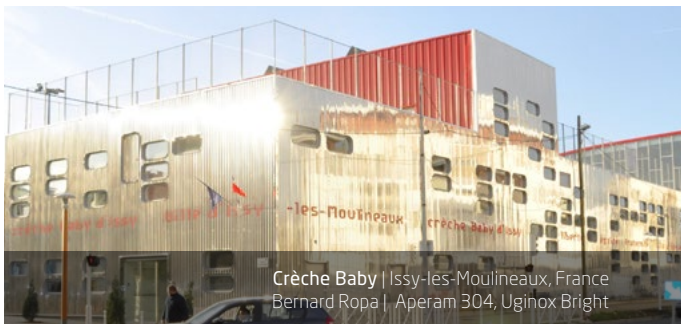
/ Stainless Steel Grade

A stainless steel grade is characterised by its chemical composition and has a direct impact on the material's corrosion resistance and mechanical properties.

/ Surface Finishes

Surface aspects are the result of mechanical or physico-chemical treatment to the stainless steel's surface. The same aspect can be obtained for different grades of stainless steel.

/ Solar Reflectance



Crèche Baby | Issy-les-Moulineaux, France
Bernard Ropa | Aperam 304, Uginox Bright

The Solar Reflectance Indices (SRI) of our range extend from the lowest values (Uginox Patina) to the highest (Uginox MECA mirror polishes such as MECA 8 ND® non-directional mirror polish).

On the one hand, mat finishes are popular due to their ability to prevent glare from neighbouring buildings. They also bring a strong architectural character to a building and make it easier to integrate the building into its surroundings. As such, these finishes are a popular choice for roofs located near historic buildings.

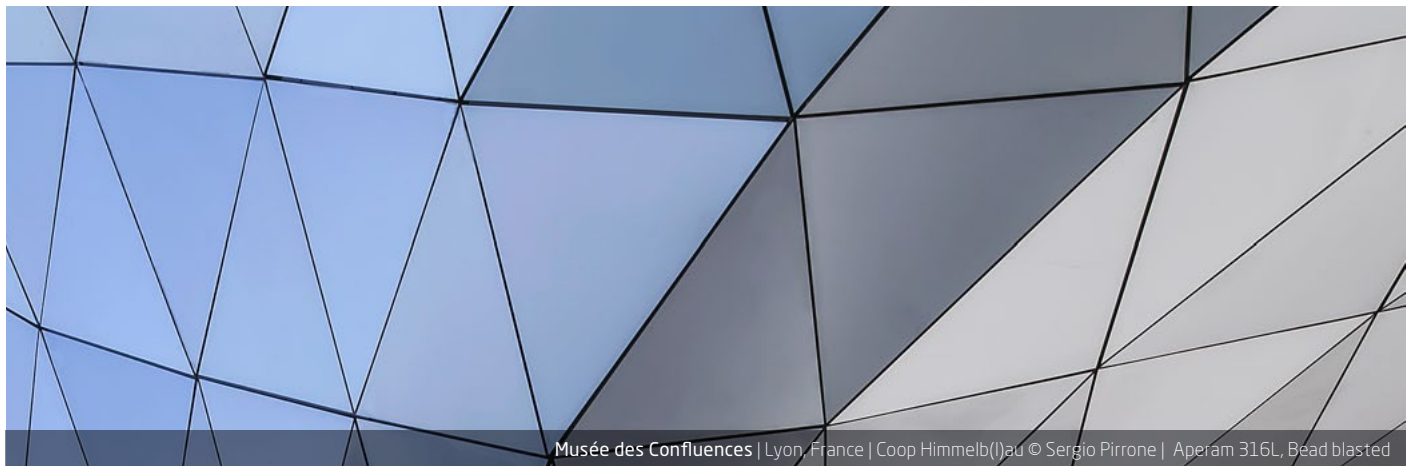
On the other hand, high-gloss finishes prevent façades and roofs from absorbing solar heat and contributing to local temperature increases. As such, they are often used to meet certain LEED requirements or BREEAM programmes.



Uginox Patina

To meet the needs of even the most aggressive environments, Uginox Patina is available in two ferritic stainless steel grades: K41 (0.4 and 0.5 mm thickness) and K44 (0.5 mm thickness).

These grades are coated with tin on both sides, a feature achieved by electroplating. Over time, the tin develops a patina, giving it a mat appearance that is particularly popular for roofing. In addition, Uginox Patina K41 and K44 can be easily soldered and worked in winter temperatures without becoming brittle. Thanks to their low coefficients of expansion, they are essential materials for roofing.



Musée des Confluences | Lyon, France | Coop Himmelb(l)au © Sergio Pirrone | Aperam 316L, Bead blasted



Uginox Top

Mat appearance obtained by engraving
Applications: Roofing / Façade / Interior



Uginox Bright

A shiny, homogeneous aspect with low roughness
Applications: Roofing / Façade / Interior



Uginox Sand

Sandblasted aspect
Applications: Roofing / Façade / Indoor



Uginox Mat

A slightly shiny appearance with low roughness
Applications: Roofing / Façade / Structure / Interior



Uginox Rolled-On

Fine polished aspect obtained by engraving
Applications: Roofing / Façade / Indoor



Uginox Leather

Leather look
Applications: Facade / Interior



Uginox Linen

Linen look
Applications: Façade / Interior



Uginox MECA 8 ND®

Non-directional super mirror appearance.
Also available in directional mirror polish (MECA 7D) and MECA BRILL to bring a shine to thick stainless steels.
Applications: Façade / Interior



Uginox Squares

Chequerboard aspect
Applications: Façade / Interior



Uginox Coloré

A range of coloured stainless steels on a mirror polished, etched, brushed or bead blasted basis.
Colours: gold, black, bronze, rose gold, champagne.
Applications: Facade / Interior



Uginox Lozenge

Diamond look
Applications: Façade / Interior

■ Our recommendations:

- > Uginox Patina is suitable for slatted, standing seam or self-supporting roofs, as well as for accessories and roofing forms. However, we do not recommend using Uginox Patina on vertical parts or the undersides of roofs as doing so could prevent the patina from developing properly.
- > It is important that the choice of surface finish be compatible with the environment where the building is located. For the same grade, low roughness finishes such as Uginox Bright, Uginox Mat and Uginox MECA are the most resistant to corrosion as they are less likely to retain contaminants and are more easily self-cleaning. Our finishes are consistent and repeatable, especially those obtained by etching.

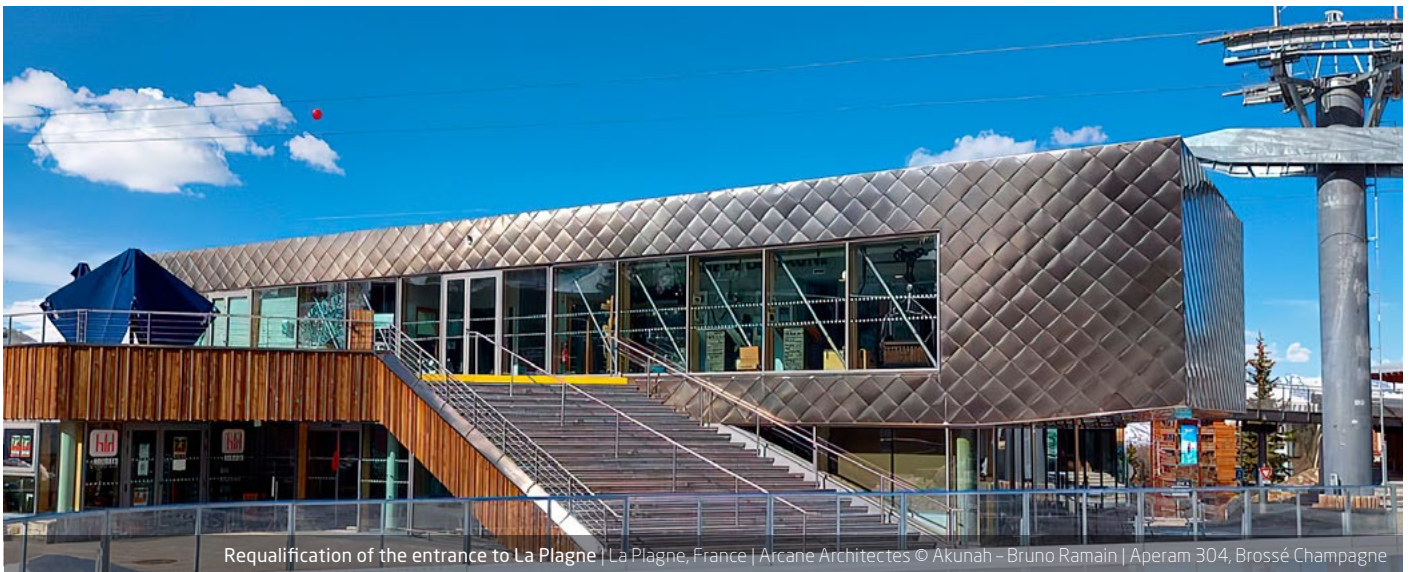


Rehabilitation of the pergola of the Sucrière | Lyon Confluence, France | Z ARCHITECTURE © Jonathan Letoublon | Aperam 304L, Uginox MECA 8 ND®.

3. CRITERIA FOR CHOOSING THE RIGHT STAINLESS STEEL

■ Chemical composition

Commercial names	Standards			Chemical composition in % (typical values)							
	ASTM Designations		EN	C	Si	Mn	Cr	Mo	Ni	Other	
	Type	UNS									
Austenitic	304	304	S30400	1.4301	0.05	0.40	1.10	18.20	-	8.05	-
	304L	304L	S30403	1.4307	0.025	0.40	1.40	18.20	-	8.05	-
	316L	316L	S31603	1.4404	0.025	0.40	1.20	16.80	2.10	10.10	-
Ferritic	K30	430	S43000	1.4016	0.04	0.35	0.30	16.50	-	-	-
	K36	436	S43600	1.4526	0.02	0.40	0.25	17.50	1.25	-	Nb = 0.50
	K41	441	S43932	1.4509	0.015	0.60	0.30	17.80	-	-	Ti + Nb = 0.65
			S43940								
K44	444	S44400	1.4521	0.015	0.50	0.30	17.70	1.85	-	Ti + Nb = 0.45	
Duplex	DX 2205	2205	S32205	1.4462	0.02	0.30	1.80	22.80	3.10	5.50	N = 0.17
	DX 2304	2304	S32304	1.4362	0.02	0.40	1.50	23	0.50	4.90	N = 0.10



■ Grade selection depends on atmospheric exposure

When choosing a shade, one must take into account the type of atmospheric exposure the material will encounter.

Our experts are available to help and to create a tailor-made solution that meets your needs.

Trade names	Indoor environments				Outdoor environments				
	Compatible with all humidity levels	Aggressive*	Rural, unpolluted	Urban and industrial		Marine			
				Normal	Severe*	20 to 10 km	10 to 3 km	Seaside (<3 km)	
Austenitic	304/304L	✓	▲	✓	✓	▲	✓	✗	✗
	316L	✓	▲	✓	✓	▲	✓	▲	▲
Ferritic	K30	✓	✗	✗	✗	✗	✗	✗	✗
	K36	✓	▲	✓	✓	▲	✓	✗	✗
	K41	✓	▲	✓	✓	▲	▲	✗	✗
	K44	✓	▲	✓	✓	▲	✓	▲	▲
Duplex	DX 2205	✓	▲	✓	✓	▲	✓	▲	▲
	DX 2304	✓	▲	✓	✓	▲	✓	▲	▲

✓ Type suitable for the environment

▲ Type to be selected after consulting us

✗ Type not suitable for the environment

*In particular, any environment or atmosphere containing corrosive or halogenated products (e.g., chlorides, fluorides, etc.)



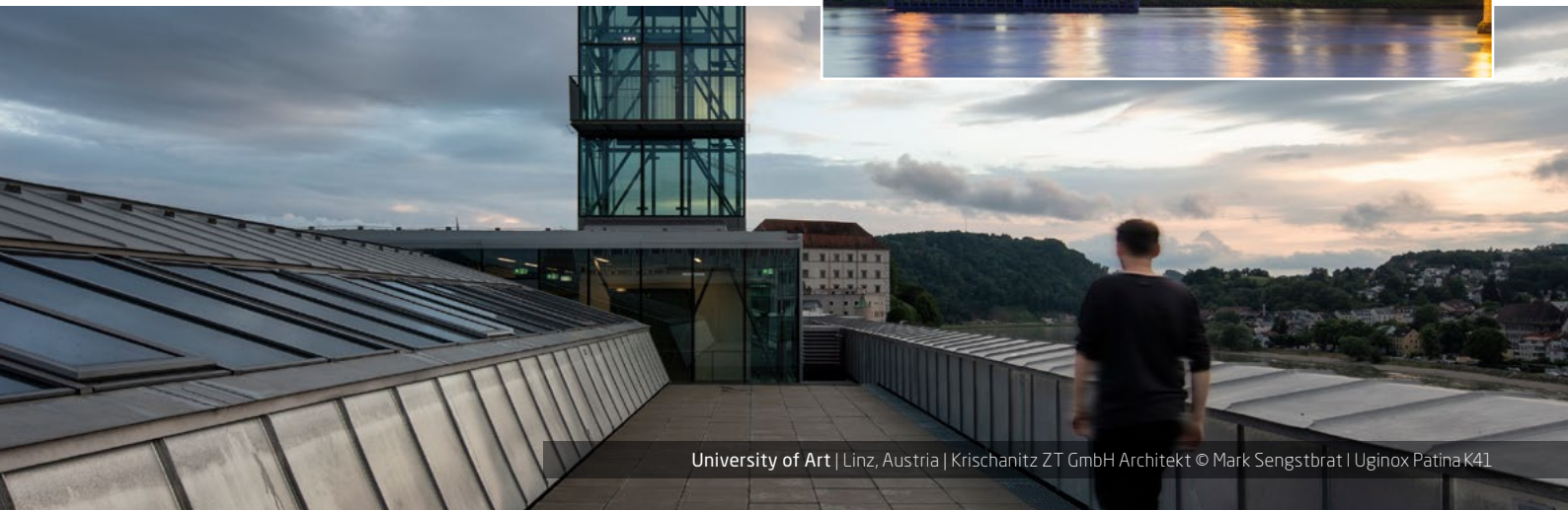
Court House | Strasbourg, France | Garcés.De Seta.Bonet Arquitectes & Serra-Vives-Cartagena © jm.bannwarth@drone-images-alsace.com | Aperam 304, Uginox Top

4. ROOFING

Stainless steel roofing can be integrated into any environment and enhances all styles of architecture, both in new buildings and in renovation projects. It's also durable, easy to maintain and recyclable, meaning stainless steel meets sustainable building and construction requirements. Regardless of the technique, our experts can advise you and guide your choice.

■ The advantages of stainless steel

- > Aperam offers a wide range of thicknesses and widths to suit all types of roofing (battens, standing seams, self-supporting panels) and for both new-build and renovation projects.
- > Of all available roofing materials, stainless steel expands the least. This enables the installation of long strips in one piece (from 10 to 20 metres depending on the country). It also reduces the number of soldering or expansion joints, resulting in faster installation and less risk of leaks.
- > Stainless steel's excellent mechanical strength allows for the use of thinner dimensions (0.4-0.5 mm), which could result in a significant savings in material.
- > Stainless steel is compatible with all types of wood without the risk of corrosion.



University of Art | Linz, Austria | Krischanitz ZT GmbH Architekt © Mark Sengstbrat | Uginox Patina K41



La Jolla Residence | San Diego, États-Unis
Daniel Schmidt © Enduringmetal | Uginox Patina K44



Immaculate Heart of Mary Church | Lille, France
TOITSUR (Silvany Hoarau) © TOITSUR (Silvany Hoarau) | Uginox Patina K41



Residential building | Munich, Germany
POOL LEBER ARCH. © Brigida González | Uginox Patina K41 / Aperam 304, Uginox Top



Bistrot Zum Glück | Meilen, Switzerland
Scherrer Metec AG, Zuerich | Uginox Patina K41



Santa Maria Church | Gunzenhausen, Germany
Uginox Patina K41



Courtyard Riehenring | Basel, Switzerland | Jessen Vollenweider Architektur AG © Scherrer Metec AG | Uginox Patina K41



Lake Memphremagog House | Canada (Quebec) | naturehumaine ©Adrien Williams | Uginox Patina K41



Residential building | Linz, Austria | Tp3 Architekten © Mark Sengstbratl | Uginox Patina K41

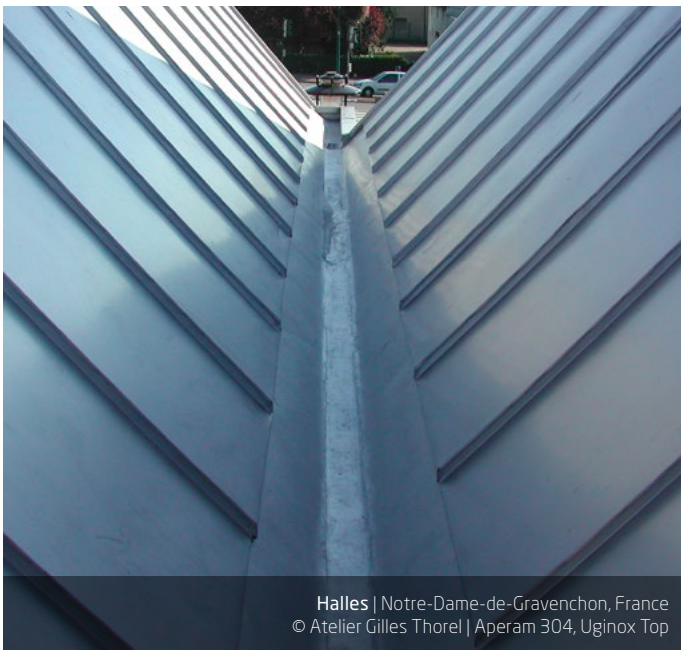
■ Rainwater collection and drainage

Stainless steel roofing accessories are an indispensable complement to any type of roof. For example, because stainless steel is environmentally neutral and does not release any chemical substances or elements, it is an ideal material for rainwater collection and reuse.

Stainless steel can be used to make gutters in welded sections or in a single piece of up to 20 m in length (depending on width and local regulations). This reduces the number of brazed joints and increases the safety of the structure.

Stainless steel in thicknesses of 0.4 or 0.5 mm is easy to process, even in cold weather, and can be soldered with tin. Depending on the length of the elements, bending can be done directly in the workshop or on site with the help of pliers.

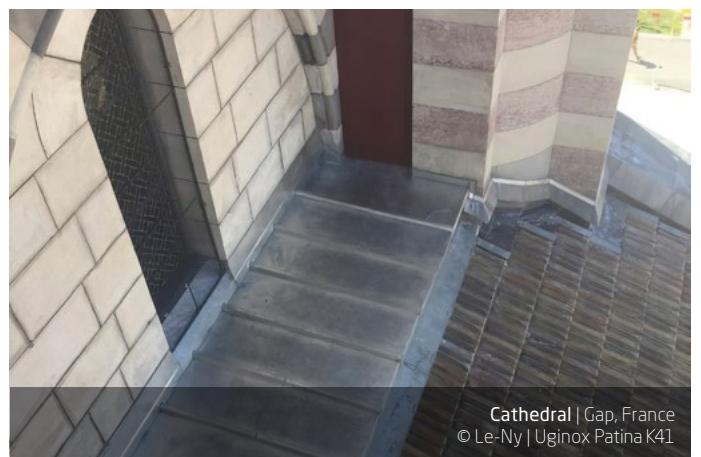
Uginox Patina and Uginox Top are traditionally used for roofing accessories.



Halles | Notre-Dame-de-Gravenchon, France
© Atelier Gilles Thorel | Aperam 304, Uginox Top



Kadampa Manjushri Buddhist Temple | Ulverston (Cumbria), United Kingdom
Mark Tole © Aperam | Uginox Patina



Cathedral | Gap, France
© Le-Ny | Uginox Patina K41



Chaeserrugg Mountain Station | Toggenburg, Switzerland | Herzog & de Meuron, Basel – Zinc work: Buehler Bedachungen und Bauspenglerer AG, Romanshorn | Uginox Patina K41

■ Roofing in the mountains

In mountainous environments, the design and building of structures must take into account temperature variations, localised or distributed snow loads, erosion caused by snow/ice movements and siphoning.

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

- > Excellent resistance to thermal shocks due to its low expansion
- > No embrittlement, even at very low temperatures
- > The mechanical strength needed to withstand heavy snow loads

The standing seam roofing system is particularly well-suited to mountainous areas. Stainless steel's low expansion limits the number of transverse seams and welds required, minimising the risk of leaks and increasing the durability of the structure.



Hotel-Spa Interlaken | Xonrupt-Longemer, France
JLG Architecte | Uginox Patina K41



Mannheimer Hütte | Brand bei Bludenz, Austria
CUBO Architektur und Baumanagement | Uginox Patina K41



Refuge du Goûter | Saint-Gervais, France | Groupe H & Déca-Laage © Pascal Tournaire | Aperam 304, Uginox Top



Cabane de Tracuit | Zinal, Switzerland | Savioz Fabrizzi © Thomas Jantscher | Aperam K36, Uginox Bright



Refuge Campana de Cloutou | Bagnères de Bigorre, France | TRIPTYQUE © Florent Roussy | Aperam 304, Uginox Top



Residential building and crèche | Nantes, France
Philippe Dubus © Sergio Grazia | Aperam 304L, Uginox Bright
Eiffel Prize 2018 Category Innovate

5. FAÇADES

With a range of thicknesses available for every surface aspect, you can create continuous façades and roofs to form a complete building envelope.

■ The advantages of stainless steel

- > High mechanical properties means a lighter envelope, allowing for a reduction in thickness
- > Compatible with different types of support: metal, all types of wood, etc.
- > Possible to integrate with construction systems that provide thermal and/or acoustic properties
- > Meets national and European thermal regulations
- > Attractive overall cost compared to traditional techniques and products
- > All types of cladding can be used for both new build and refurbishment projects
- > In refurbishment, the stainless steel envelope transforms and modernises the building while complying with current thermal regulations and eliminating thermal bridges





Philharmonie de Paris | Paris, France | Ateliers Jean Nouvel, Metra & Associés © William Beaucardet | Aperam 316L, Uginox Bright

Our wide range of aspects means you can give your building a very unique identity – from an extreme shine (EDF/UFPI campus student restaurant) to a metallic mat finish (Faubourg Poissonnière residential complex).

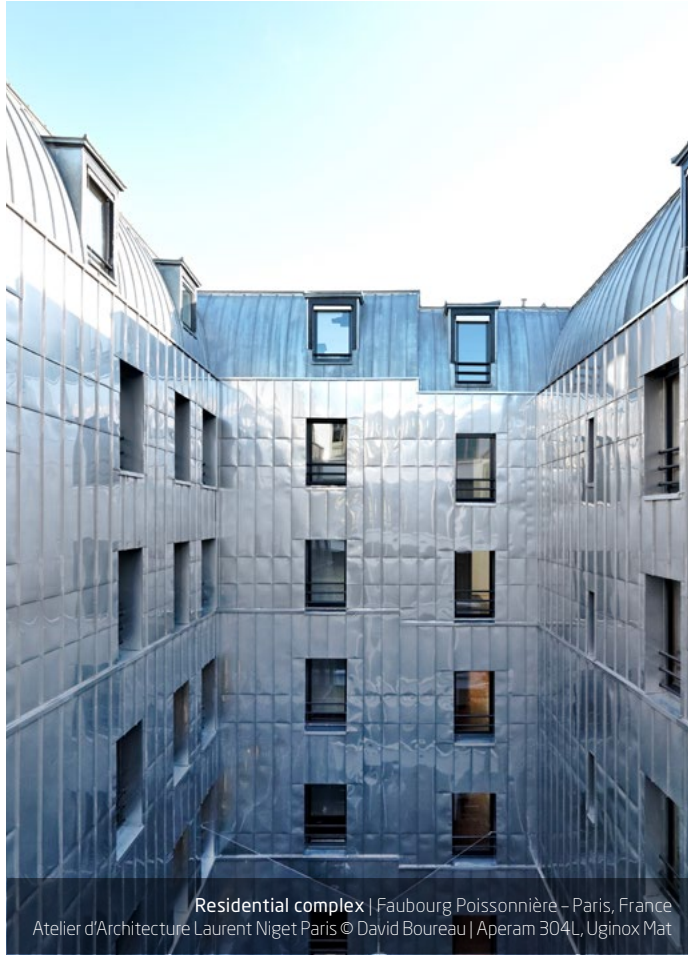
Furthermore, our extensive range of thicknesses allows for all types of installation techniques – from the most traditional like standing seam (Miriam Makéba School Group) and clapboard (photo 2) to the more original (Philharmonie de Paris). It also enables all types of perforations to underline the specificity of the building, such as the real text added to the Annecy-le-Vieux library or the water drop shapes of the Colmarienne des eaux.



Student restaurant EDF/UFPI campus | Saint-Vulbas, France | SOHO ATLAS IN FINE © Vincent Ramet | Aperam 304L, Uginox Bright



Miriam Makéba School complex | Nanterre, France
Cabinet Toa architectes associés © Frédéric Delangle | Aperam 304, Uginox Rolled-on



Residential complex | Faubourg Poissonnière - Paris, France
Atelier d'Architecture Laurent Niget Paris © David Boureau | Aperam 304L, Uginox Mat



Tiny House | Art du toit couverture © Christophe Rouxel | Aperam 304, MECA 8 ND®



University Library | Annecy-le-Vieux, France | DE JONG architectes © Béatrice CAFIERI | Aperam 304L, Brushed



Colmarienne des eaux | Colmar, France | IOEW | Aperam 304L, Uginox Mat



Simone Veil Socio-cultural Centre | Le Havre, France | K Architectures © Sophie Oddo | Aperam 316L, Uginox Rolled-On/Bright



Swimming Pool | Drussenheim, France | BLV architecture © Christophe Bourgeois | Aperam 304, Uginox Top



Sunflower Swimming Pool | Les Abrets, France | Z Architecture © Jonathan Letoublon | Aperam 304L, MECA 8 ND®



Saint Jean - Sud de France Clinic | Saint-Jean-de-Védas, France | A+Architecture © Camille Charbi | Aperam 304L, Uginox Bright



Simone Veil School Complex | Givors, France | Roda Architectes © Sandrine Riviere | Aperam 304, Uginox Top



Sammode R&D | Lamotte-Beuvron, France | Freaks Architecture © David Foessel | Aperam 304, Uginox Bright



Cinema | Labège, France | Les Ateliers 4+ © Lionel Ruhier | Aperam 304L, Uginox Bright



Multi-cultural Centre | Isbergues, France | Dominique Coulon © D. Coulon | Aperam 304L, Uginox Bright / Top / Mat et Patina K41



University Library | Villetaneuse, France | Bernard Ropa © Luc Boegly | Aperam 304L, Uginox Bright



Aperam Service Centre | Haan, Germany | Aperam 304L, Uginox Bright



Réseau des Maisons Éclusières | Éclusier-Vaux, France | Deprick et Maniaque | Aperam 304L, Uginox Bright
Winner of the 2019 Eiffel Prize in the 'Travelling' category



Aperam, Annealing Tower RB08 | Gueugnon, France
© Aperam | Aperam 304, Uginox Bright



Nova Residential Building Nova ZAC Étoile | Strasbourg, France
TOA © TOA | Aperam 304, Uginox Bright



Les Petites Cordées Crèche | Chamonix, France
dejongarchitectes © Beatrice Cafieri | Aperam 304, MECA 8 ND®



Glasgow Fort | Glasgow, United Kingdom
Cooper Cromar Architect © Aperam | Aperam 304, Uginox Mat

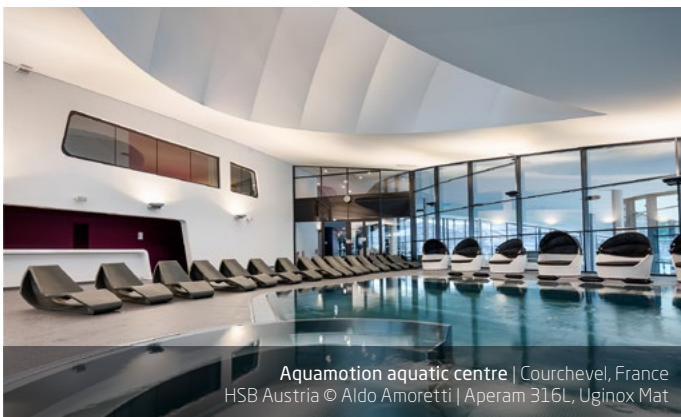
6. STRUCTURES

■ Swimming pools

Our stainless steel range 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.

■ 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.



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

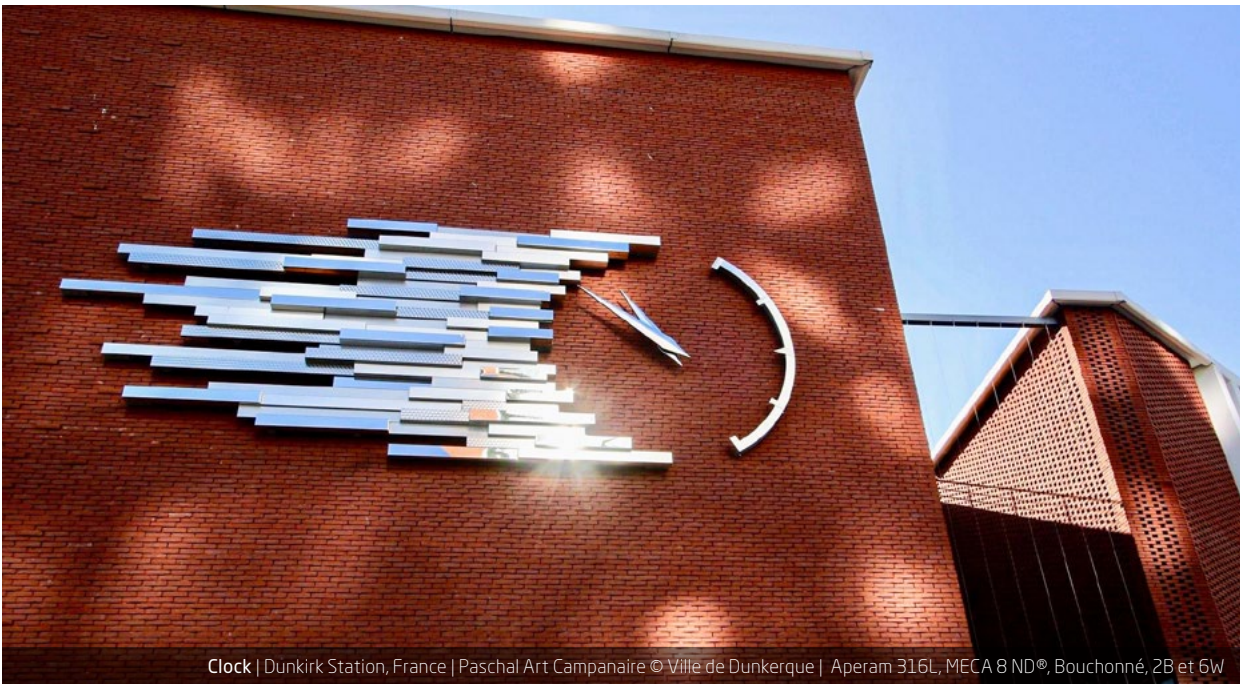
- Stainless steel is a durable material that does not fade and is easy to maintain
- Stainless steel withstands temperature variations without damage
- Unlike tiled pools, with stainless steel, there is no risk of water leaks
- The surface properties of the stainless steel sheets and the way the various parts are assembled limit the risk of bacterial proliferation
- Stainless steel is a very efficient alternative to traditional materials. The purchase costs may be higher, but the operating costs are lower, meaning that over the entire life of the installation, the return on investment is very advantageous.



Stainless steel 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

- High corrosion resistance, very good mechanical strength, high yield strength: the use of stainless steel with engineering structures is a guarantee of quality and durability, even in very aggressive environments such as seashores or industrial areas
- Characteristics that meet the most stringent technical requirements: long lifespan, lighter structures, seismic performance
- Its Young's modulus to density ratio makes it possible to reconcile lightness and rigidity and thus to create slender structures
- The use of stainless steel is also a source of significant savings, ultimately putting its cost into perspective



Clock | Dunkirk Station, France | Paschal Art Campanaire © Ville de Dunkerque | Aperam 316L, MECA 8 ND®, Bouchonné, 2B et 6W

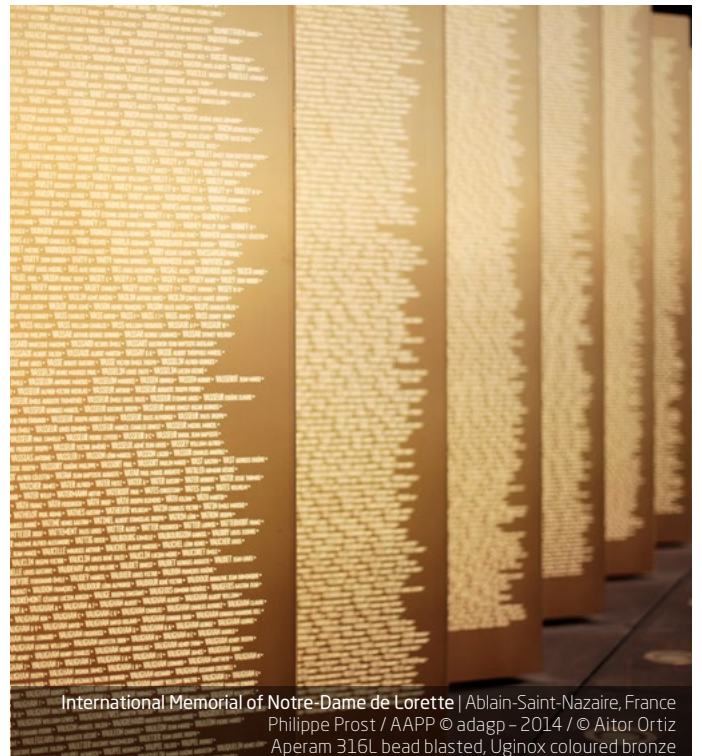
7. DECORATION

The number of stainless steel applications are many and depend on the designer's imagination:

- > 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, company logos, etc.



Extension of the CTLES (Centre Technique du Livre de l'Enseignement Supérieur), Bussy-Saint-Georges, France | Antonini + Darmon © Pierre L'Excellent
Aperam 304L, Uginox Bright



International Memorial of Notre-Dame de Lorette | Ablain-Saint-Nazaire, France
Philippe Prost / AAPP © adapp - 2014 / © Aitor Ortiz
Aperam 316L bead blasted, Uginox coloured bronze



Jean-Jacques Jakubowicz Sculpture, dit Jakos | Aperam 304L, MECA 8 ND®



Silène luminaris sive Muflier de Borges | Fondation Clément, Le François, Martinique
Miguel Chevalier | Aperam 316 peint en rouge et orange



Jean-Luc Le Mounier Furniture - Évolution



Pier | Yvoire, France | Fabrice David © Studio Erick Saillet | Aperam 304, MECA 8 ND® Mirror Polished & Uginox Bright



PANEUM - Wunderkammer des Brotes | Asten - Austria | COOP HIMMELB(L)AU © Markus Pilhofer | Aperam 316L, Uginox Mat

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

"This document is for information only and seeks to provide professionals with the best possible information to enable them to make appropriate choices. However, product range development may render all or part of this document obsolete. Our company's sales and technical personnel are at your disposal to provide further information. This document does not constitute a recommendation or a contractual commitment on the part of our company.

Aperam reserves the right to change its products at any time in light of technical advances. Product selection is the responsibility of the specifiers, designers and builders, who are solely responsible for rendering the finished unit suitable for the use for which it is intended. It is the customer's sole responsibility to ensure that the product is suitable for the use for which it is intended; unless specifically agreed to the contrary, Aperam is unable to provide any guarantee in this respect.

Any technical assistance provided by Aperam corresponds to the duty to provide advice and information that is incumbent upon any manufacturer mindful of the correct use of its products but shall not render Aperam co-designer or co-constructor of the unit in which its products are used".

Origine France Garantie



Aperam Services & Solutions Lusignan is certified *Origine France Garantie*. Since 1966, this site has specialised in the surface treatment of stainless steel. Our mastery of polishing operations enables us to offer very high-quality surface finishes to meet the requirements of various markets, such as construction, industry, decoration and fittings. Our mirror-polished, grain-polished and corked references, certified by Origine France Garantie, will help you realise your projects.



Aperam provides environmental product declarations (EPDs) to describe the impact its products have throughout their life cycle. Our customers use these EPDs to make informed decisions about the stainless steel they purchase.

The global warming potential of stainless steel grades commonly used in the construction industry:

2.02 t CO ₂ e/t Aperam 304	2.45 t CO ₂ e/t Aperam K41	2.57 t CO ₂ e/t Aperam K41 Patina
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(Cradle-to-Gate - from the extraction of raw materials to the factory gate - cat. A1-A3)

While stainless steel is in use, regular cleaning with clean water is sufficient (no repainting, no waste disposal, etc.). The frequency of these interventions and the use of specific products depend on the surface aspect and the environment of the building. The environmental impact during this period is almost zero. During deconstruction, all stainless steel is recovered, reclaimed and recycled.



ACE/2021/94388.1

- > Aperam is a European producer of stainless steel and the first company to have its **European sites certified by ResponsibleSteel™**
- > Aperam has all certifications relevant to construction: **ISO 9001, 14001, 45001, 50001**
- > All products from Aperam's European sites are certified as complying with **CE marking** requirements
- > Aperam ensures the **traceability** of its products



Prefecture | Starnberg - Germany | Auer Weber Architekten BDA © Aldo Amoretti | Uginox Patina K41



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 Responsible Steel
standards & certification

Aperam is the first stainless steel company to be certified by ResponsibleSteel™