

Special surfaces

Outokumpu Deco range

outokumpu
high performance stainless steel



outokumpu.com/deco

Working towards a world that lasts forever

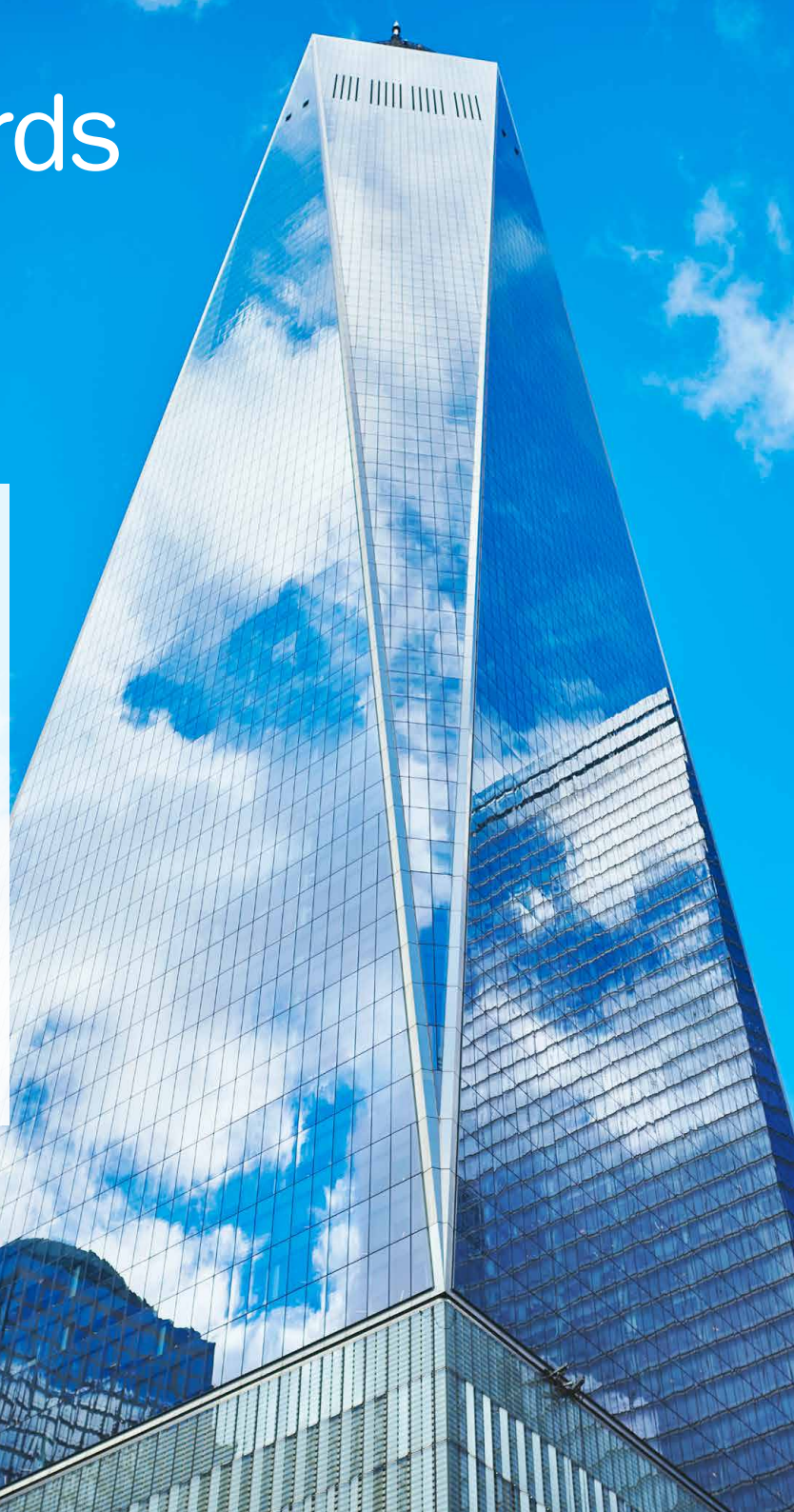
Outokumpu is a global leader in the advanced materials business, creating stainless steels that are efficient, long lasting, and recyclable. A strong customer focus, sustainability, and technical excellence are at the heart of everything we do.

As an open and approachable company, our customers rely on our advice to help them select products that will deliver the best long-term performance for their needs.

With over a century of innovation behind us and some of the best minds in the business, we continue to develop pioneering materials to meet the demands of tomorrow.

The durability of stainless steel means that it is not only the best, but also the most economically sustainable choice for a wide range of applications. All of our products are made from an average of 85% recycled material and are fully recyclable at the end of their lifecycles. Together with our customers and partners, we are building a world that lasts forever.

Keep up to date in the world of stainless steel –
order Outokumpu Newsletter:
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The inside view

Outokumpu's Deco finishes are a popular solution in design, appliances and architectural applications. The Deco range includes premium bright annealed, polished, brushed, industrial bead blasted and patterned finishes.

Outokumpu offers a wide variety of surface finishes for our stainless steel products, covering everything from decorative architectural cladding to attractive, hygienic surfaces for kitchens.

Due to its durability and resistance to corrosion, stainless steel does not need a protective coating. This allows the noble appearance and cool metallic touch to be fully experienced. There are several processes – such as rolling, pickling, polishing, brushing, blasting, and embossing – that allow for the aesthetical modification of stainless steel's surface finish. By exploiting all of these techniques Outokumpu can offer a wide selection of individual surface finishes, in addition to standard finishes like 2B or BA/2R. We have a number of patterned surfaces that can, for example, create a hard-wearing and aesthetically attractive interior in elevators or serve as a stunning, softly reflecting façade material.

Our special surfaces have exceptional properties in terms of their reflectiveness and roughness. Deco Rolled-On finish is an embossed polish pattern on a BA/2R substrate that can improve the corrosion resistance compared to a traditionally polished surface. We offer a high-gloss surface exceeding the quality level of standard bright annealed finishes. With its high specular reflectance, high DOI and low haze Deco 2R² is closing the gap between BA/2R materials and cost intensive No. 8 mirror polished surfaces. At the other end of the gloss spectrum we produce a dull finish called Deco Supermatt, which is an industrially shot blasted surface with an extremely homogeneous, high-quality appearance.



Dr. Jörn Teipel, Outokumpu

Outokumpu has decades of experience producing various surface finishes on stainless steel with outstanding quality and consistency. We use state-of-the-art Sendzimir and skin-pass mills that offer better control of embossing depth and allow us to control the reflectiveness of our finish patterns. We also offer finished materials up to 1500 mm/59" wide and in thicknesses down to 0.3 mm/0.11" for many of our finishes. Ask our experts to help you choose the best surface finish for your application at [outokumpu.com](https://www.outokumpu.com)

Deco range

Patterned Deco

Deco Austenite	Deco Linen without Slubs
Deco Bricks	Deco Microlinen
Deco Croc Skin	Deco Microlinen without Slubs
Deco Diamonds	Deco Nine
Deco Haze	Deco Rill
Deco Ice Crystals	Deco Sand Surface
Deco Laser	Deco Square
Deco Leather Grain	Deco Vertical Linen
Deco Linen	

Deco specials

Deco 2R²
Deco Supermatt
Deco Rolled-On


Polished Deco

Deco 4N
Deco Microlon
Brushed No. 5

Deco applications

Deco range applications

Facades
Roofing
Indoor claddings
Decorative profiles
Anti-slip flooring
Elevators
Escalators
Cash desks
Machine housings
Sinks



Let our experts help you
choose the best surface
finish for your application.

Contact us at [outokumpu.com](https://www.outokumpu.com)

Patterned Deco

Choosing the right surface for your application is key to ensure both the cost-effectiveness and success of your project. Take a look at the individual Deco range finishes and typical applications to get an idea of your options.

The Linen Family

Deco Linen

Our most popular patterned surface finish combines attractive design with functionality. A pattern of closely alternating dots and dashes resembling a textile surface, remains intact even under forming.

Typical applications

Elevators, escalators, cash desks, exterior and interior architecture.

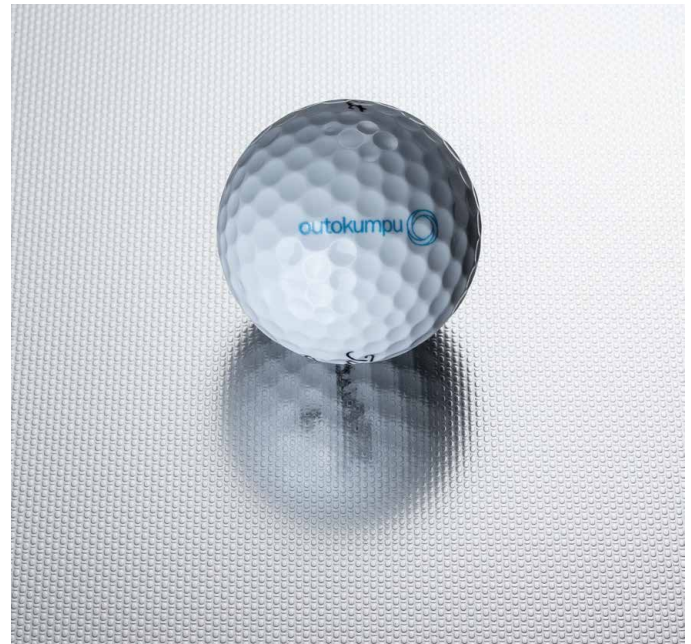
Available for these products

Moda 430/4016, Core 304/4301, Core 304L/4307, Core 441/4509, Supra 316/4401, Supra 316L/4404 and Forta DX 2205. Other grades available on request

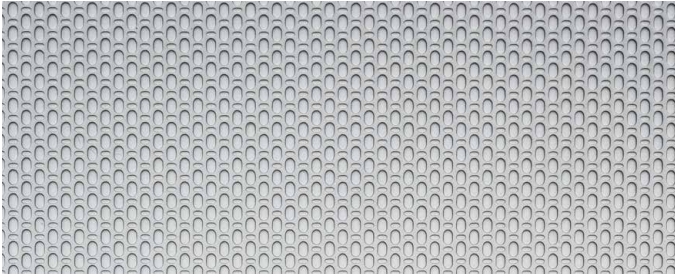
Min/max dimensions

Thickness: 0.3–3.5 mm/0.011–0.13"

Width: up to 1500 mm/59"



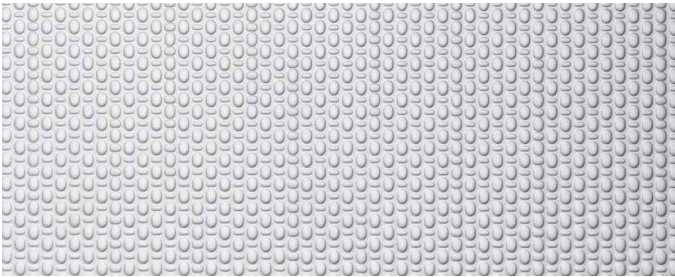
Deco Linen



Deco Linen without Slubs

Deco Linen without Slubs

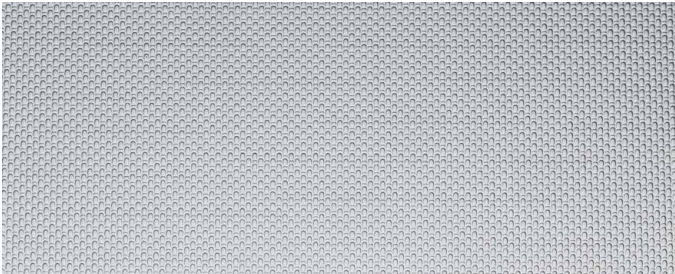
Removing the distinctive linen thread makes Deco Linen without Slubs less directional and increases its even and elegant look.



Deco Vertical Linen

Deco Vertical Linen

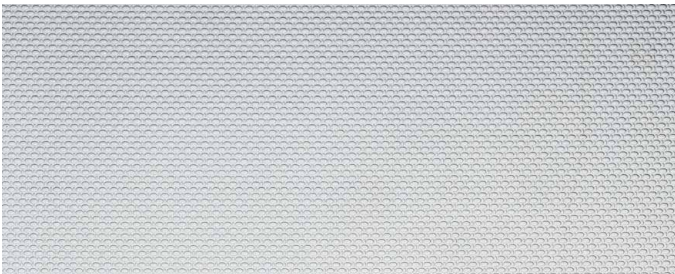
In regular Deco Linen the distinctive linen threads – also referred as slubs – are running perpendicular to the rolling direction. In order to allow for a smoother pattern flow these slubs are tilted by 90° in Deco Vertical Linen. This gives an enhanced verticality to the linen texture which is particularly favorable when panels are placed upright.



Deco Microlinen

Deco Microlinen

A scaled-down version of the typical linen pattern causing a finer, denser and more delicate appearance.



Deco Microlinen without Slubs

Deco Microlinen without Slubs

The scaled-down version is available without the linen thread to create a fine and dense but less directional finish.

Other patterned finishes

Patterning of stainless steel leads to an enhanced combination of design and function. Outokumpu offers a large variety of patterned surface finishes, and each pattern can have different reflection properties.

Our most popular designs are Deco Linen, Deco Haze, Deco Laser, Deco Microlinen, Deco Diamonds, Deco Square, and Deco Leather Grain. Individual patterns can also be developed according to specific needs. For improved formability, a recovery annealing is applied after embossing and, due to tension leveling, an extremely high flatness can be achieved.

Typical applications

Elevators, escalators, interior architecture, sinks, claddings, facades, cash desks, refrigerated display cases, scratch-resistant housing for various machines.

Available on these products:

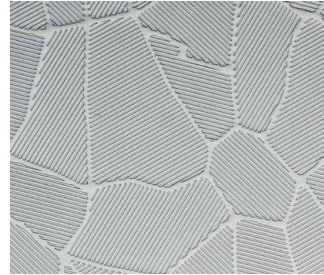
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Min/max dimensions

Thickness: 0.3–3.5 mm/0.011–0.13"

Width: up to 1500 mm/59"

For more pictures and information visit us at outokumpu.com/deco



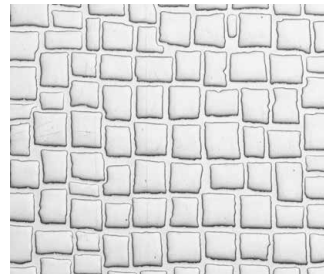
Deco Austenite

Modeled on the microstructure of an austenitic stainless steel, plays with the light to create a dazzling effect.



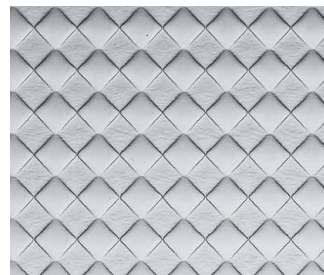
Deco Bricks

Scaled-down version of a brick wall, creating an industrial impression.



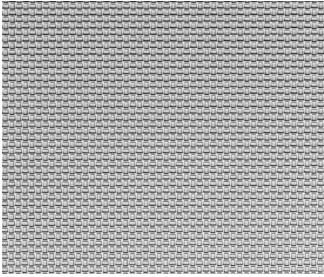
Deco Croc Skin

Combines the advantages of a stainless steel surface with a natural-like texture.



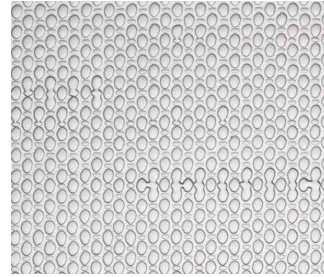
Deco Diamonds

Strictly geometric pattern given added tension by its diagonal orientation.



Deco Haze

Gives the appearance of sun shining through the fog. Capable of withstanding heavy forming operations.



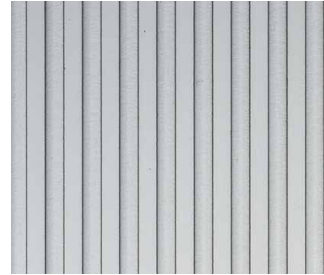
Deco Nine

A coarser version of Deco Linen with more prominent linen threads.



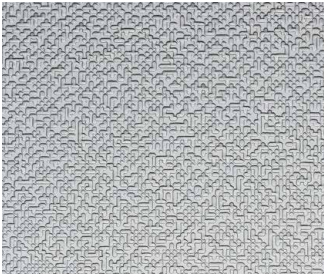
Deco Ice Crystals

Irregular coarse structure. Insensitive to fingerprints, scratches and other surface damages.



Deco Rill

The highly precise alternation between high and low running rills generates a strict linearity. Available from 1.2 mm upwards.



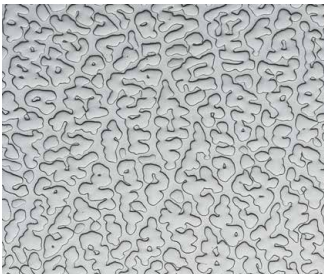
Deco Laser

Digitalized micro-patterns, randomly arranged without pattern repetition. A nearly homogenous surface is observed under all viewing angles and light conditions.



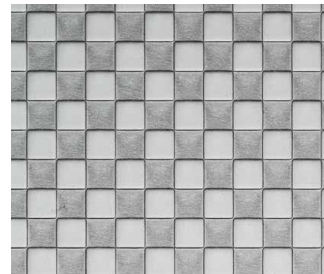
Deco Sand Surface

Fine irregular structure creating the impression of a sand surface.



Deco Leather Grain

Irregular structure similar to a leather surface. Insensitive to fingerprints, scratches and other surface damages.

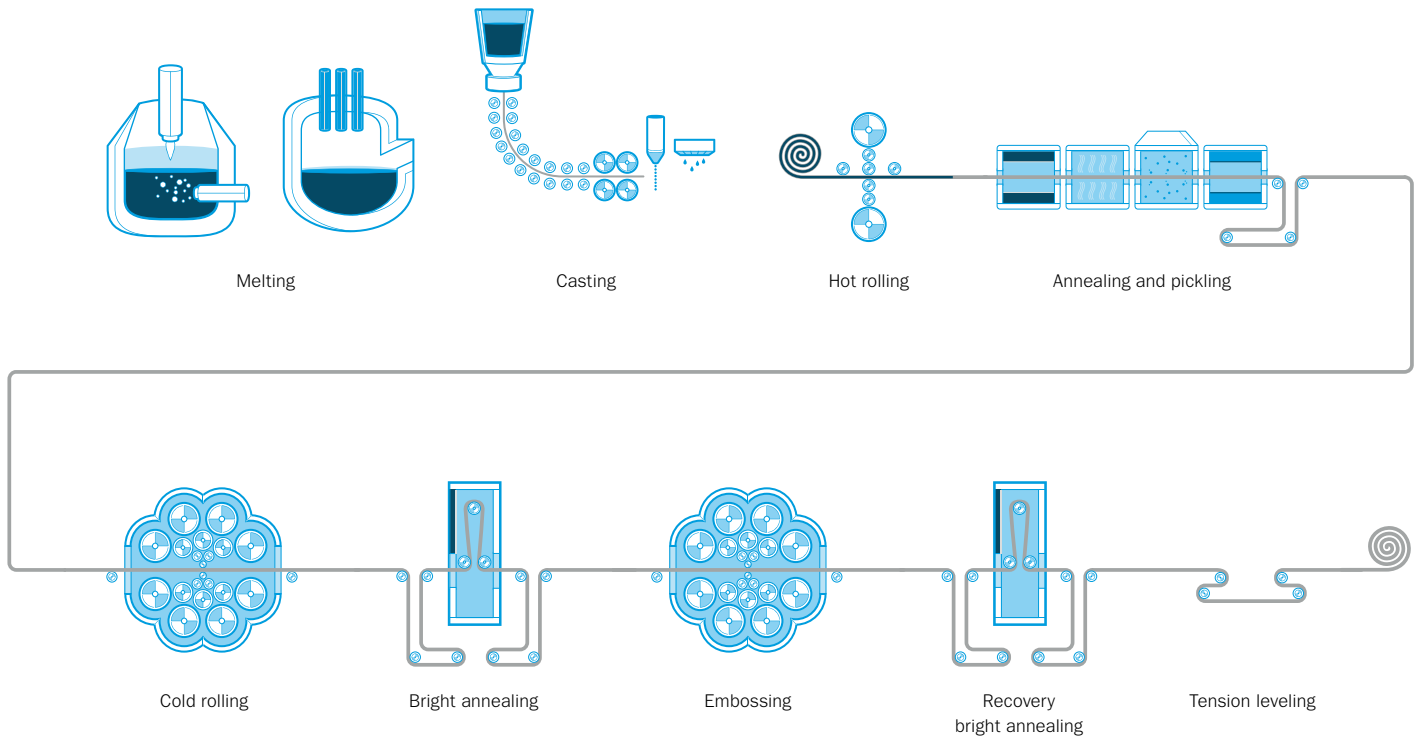


Deco Square

Clearly structured pattern creating a technical impression. Raised and recessed sections have different reflection characteristics.

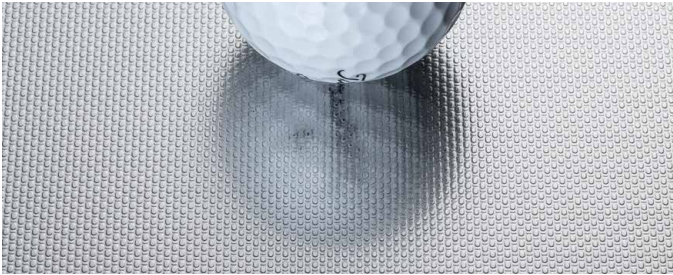
Production of patterned surfaces

During patterning the top side of the stainless steel material is affected only. The bottom side stays flat. Due to low deformation and recovery bright annealing after embossing the material keeps its good formability. A final tension levelling ensures extremely high flatness which is compulsory for façade and cladding applications. Materials treated like this are 2M finishes according to EN 10088-2.



Versions of patterned surfaces

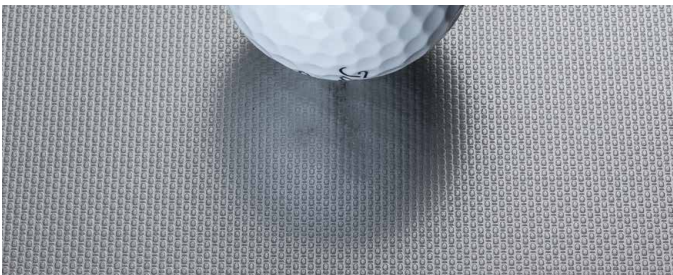
All patterned surfaces are available in four different versions. Aside of our standard version on bright annealed base material we offer some less glossy versions in case you underlie glare regulations or just like another look of your Deco material.



Deco Linen Star



Deco Linen Matt



Deco Linen Supermatt

Version Star

Compared to the standard Deco Linen this high-end Linen version goes through an additional production process which adds a very fine texture upon the pattern structure resulting in a more sparkling finish with slightly lower reflectance alongside with a higher homogeneity of the surface.

Version Matt

Duller than regular Linen but nonetheless a lively finish due to a smoothly and slightly glittering reflectance.

Version Supermatt

This symbiosis of patterning and industrial blasting results in a homogeneously dull finish with well below 10% specular reflectance but still showing an unobtrusive sparkle.

Deco specials



Deco 2R²



Deco Rolled-On

Deco 2R²

Deco 2R² is a high-gloss surface exceeding the quality level of standard bright annealed finishes. With its high specular reflectance, high DOI and low haze Deco 2R² is closing the gap between BA/2R materials and cost intensive No. 8 mirror polished surfaces.

Typical applications

Interior and exterior architecture, design products, technological components, and products which require high reflectivity or low surface roughness.

Available for these products

Core 304/4301, Core 304L/4307, Supra 316/4401, Supra 316L/4404

Deco Rolled-On

Deco Rolled-On is a rolled-on finish with similar properties and appearance to a polished surface but is easier to clean and provides improved corrosion resistance.

Typical applications

Interior architecture, escalators, elevators, store counters and shelves, cash desks, display cases, handrails, commercial kitchens, chimney pipes, grills, beverage equipment.

Available for these products

Ferritic and austenitic stainless steels. Please contact us at **outokumpu.com** for more information.



Deco Supermatt



Deco Supermatt 1800d



Deco Supermatt 2400d

Deco Supermatt

Deco Supermatt is produced by shot blasting in industrial production lines which guarantees a steady process combined with reasonable cost competitiveness.

It is our dullest available surface with an extremely homogeneous high-class appearance. The version 1800d is coarser and at the same time glossier than the original. Deco Supermatt 2400d is even more coarse and slightly less reflecting than 1800d.

Typical applications

Exterior and interior architectural cladding, roofing.

Available for these products

Core 304/4301, Core 304L/4307, Supra 316/4401 and Supra 316L/4404.

Polished Deco

Grinding or polishing

Grinding or polishing a stainless steel surface with abrasive belts of certain grain sizes leads to a wide range of highly decorative surface finishes.

Because of Outokumpu's ability to provide both wet and dry polishing and the freedom to use a 2B as well as a BA/2R as substrate, we have an exceptionally wide product range to meet any demands or requirements.

The ground or polished surface has more or less clearly visible scoring, which also makes scratches from daily wear and tear less visible. A polished surface is also easier to recreate and blend, for example after repairs or welding work, compared with a 2B, a BA/2R or a patterned surface.

Brushing

By optimizing the brushing parameters it's possible to extend the brushing lines. Outokumpu's Brushed No. 5 finish exploits this technique resulting in an elegant long grain look.

The combination of polishing and brushing leads to an even wider variation of different surface finishes matching your specific needs.

Typical applications:

Elevators, escalators, refrigerators, handrails, store counters and shelves, cookware, kitchen goods, architectural cladding.

Available on these products:

All austenitic and ferritic stainless steels in the Moda, Core, and Supra ranges. Other grades available on request.



Deco 4N

Most sold polishing of Outokumpu with elegant satin-like look.



Deco Microlon

Elegant, dark grey surface appearance for a classy look of interior and exterior claddings. Available as dry or wet polished depending on application and dimension.



Deco Brushed No. 5

Slightly glossy, elegant finish with an appearance between a fine polished and a fine brushed look.

Standard Designations

EN and ASTM list many designations for different types of polished and brushed surfaces. Within each finish description the surface characteristics can vary, and more specific requirements may need to be agreed between manufacturer and purchaser.

EN	Description
2G	Ground Grade of grit or surface roughness can be specified. Unidirectional texture, not very reflective.
2J	Brushed or dull polished Grade of brush or polishing belt or surface roughness can be specified. Unidirectional texture, not very reflective.
2K	Satin polish Additional specific requirements to a “J” type finish, in order to achieve adequate corrosion resistance for marine and external architectural applications. Transverse Ra < 0.5 µm with clean cut surface finish.
2P	Bright polished This finish is achieved by mechanical polishing. The process or surface roughness can be specified. It is a non-directional finish, reflective with a high degree of image clarity.

ASTM	Description
No. 3	Intermediate polished finish This is a linearly textured finish that may be produced by either mechanical polishing or rolling. Average surface roughness (Ra) may generally be up to 40 micro-inches. A skilled operator can generally blend this finish.
No. 4	General purpose polished finish This is a linearly textured finish that may be produced by either mechanical polishing or rolling. Average surface roughness (Ra) may generally be up to 25 micro-inches. A skilled operator can generally blend this finish. There may also be overlap in measurements of surface roughness for both No. 3 and No. 4 finishes.
No. 6	Dull satin finish This finish has a soft, satin appearance and has a reflectivity that is lower than a No. 4 finish. It is used for architectural applications and ornamentation where high luster is undesirable. It is also used effectively to contrast with brighter finishes.

Megatall with iconic stainless steel façade

Ping An Finance Center,
Shenzhen, China

Customer need

Architects for the megatall skyscraper of Ping An Finance Center were looking for exterior cladding that delivers performance and permanence.

Our solution

Outokumpu Deco Linen surface finish on Supra 316L stainless steel grade wraps the building with unique durability and a timeless visual quality that complements cutting-edge design.



Building on experience

The Sowwah Center Abu Dhabi, United Arab Emirates

Customer need

Stainless steel with consistent look and feel for the architectural facade on iconic Abu Dhabi development.

Our solution

Delivery of 400 tonnes of Supra 316L/4404 embossed with a Deco Linen textured finish. Stringent quality control procedures at our Dillenburg plant ensured consistent color and quality, creating a flawless and eye catching finish for four extravagant tower buildings.

Stainless steel in the market

ITAB HARR
Malschwitz, Germany

Customer need

During the regular check-out process in supermarkets all items need to be presented to the cashier for scanning followed by the payment act. Have you ever noticed while waiting in line how much stainless steel is processed in these checkouts?

Our solution

The answer is up to 110 kg. ITAB is one of Europe's leading suppliers of shop concepts and prefers to process Outokumpu's Deco Diamond and Deco Leather Grain finishes for their checkouts. These patterns add a robustness to the stainless steel surface making it less damageable and therefore more durable. Furthermore, this application takes full advantage of the hygienic properties of stainless steel and last but not least the Deco Diamond and Deco Leather Grain pattern provide a highly aesthetic softly shining metallic look.

Design shines for the ages

One World Trade Center, New York, US

Customer need

This highly symbolic skyscraper looks to the future while memorializing the structure that preceded it. Accordingly, architects Skidmore, Owings & Merrill created an echo of the original tower's distinctive corners in 1WTC. But to make the corners truly prominent, the architects asked Outokumpu for something unique.

Our solution

Deco Laser, a bright-surfaced pattern finish, was developed specifically as cladding material for the landmark One World Trade Center in New York City. The original twin towers had prominent corners, and architects wanted this feature echoed in the new building. To realize this vision, they required a stainless steel finish that would appear very bright from all angles.

Deco Laser is produced with an embossing process in rolling mills. It was developed as an alternative to the Deco Linen finish to offer more brightness for some architectural applications. Two hundred tons of Deco Laser finished cladding was delivered to the One World Trade Center site.



Deco Laser

Working towards a world that lasts forever.

We work with our customers and partners to create long lasting solutions for the tools of modern life and the world's most critical problems: clean energy, clean water, and efficient infrastructure. Because we believe in a world that lasts forever.

outokumpu classic			outokumpu pro					
Moda Mildly corrosive environments	Core Corrosive environments	Supra Highly corrosive environments	Forta Duplex & other high strength	Ultra Extremely corrosive environments	Dura High hardness	Therma High service temperatures	Prodec Improved machinability	Deco Special surfaces

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