

aperam
made for life

Our stainless steel automotive
decorative offer



Aperam is a global stainless steel player offering a multitude of effective, innovative and environmentally friendly stainless steel solutions, tailored to meet our customer expectations.

Aperam stainless: your key partner.

We **anticipate** end-users' new requirements and we **support** every customer, from technical assistance to product co-development, thanks to our global presence.

Proximity

With our worldwide service centres carrying out finishing operations on our stainless products, cutting and slitting to required dimensions, surface finishing and packing, we are committed to responding to your individual needs and expectations. You thus benefit from the strength of a large organisation and the responsiveness of a human-scale operation.

Competitiveness

Due to their outstanding processability, automotive parts made with stainless steels guarantee excellent cost effectiveness. Stainless steels allow for significant process simplification and therefore reduce process costs. The price stability, especially with our ferritic grades containing 0% Nickel, gives stainless steel its competitiveness. The process route is known and mastered, ensuring that transformation costs are kept as low as possible.



Automotive decoration in response to changing trends

- Changing trends are responsible for the increasing attractiveness of stainless as a material for automotive decoration. The market is partly driven by the growing number of people who desire **attractive cars with special features**, particularly for decorative trim, window seals, logotypes, roof bars and grid decorations, etc.

Stainless steel for these decorative touches offers discerning customers a winning **combination of design, style and aesthetics** and is becoming increasingly valued for the way it highlights the outlines of a vehicle's bodywork adding a touch of elegance to premium model cars, family vehicles and high range models.
- As well as being aesthetically pleasing, **stainless is the performance material of choice** and thus perfectly suited for the automotive industry. To this end, Aperam has developed a range of grades and surface finishes that meet **all the manufacturers' corrosion specifications** while being able to withstand the most severe conditions including road salt, exhaust fumes, scratches.

The aspect will not tarnish (with proper care) throughout the lifetime unlike plastics.

The high mechanical characteristics enable the use of thinner gauges compared to aluminium which is a win in terms of **price competitiveness**.
- Stainless steel meets one more requirement in the quest to develop **more sustainable solutions** as it is fully recyclable, endlessly recycled and neutral to the environment.

We currently provide our product worldwide. As best suppliers to the automotive industry, Aperam is « End of Life Vehicles EU Directive » compliant and ISO TS 16949 Certified.

01



Lightening insert (stamping)

02



Decorative trim (roll forming, bending)

03



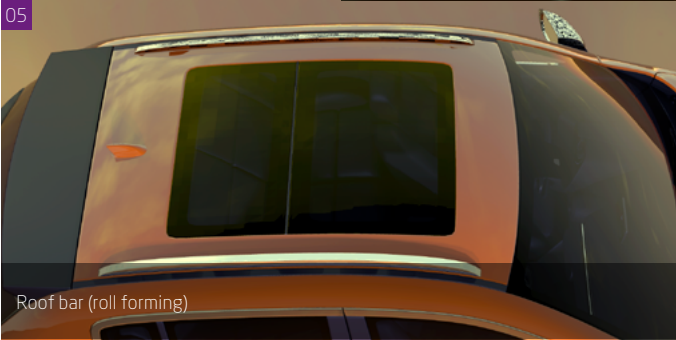
Door insert

04



Front grill (stamping)

05



Roof bar (roll forming)

06



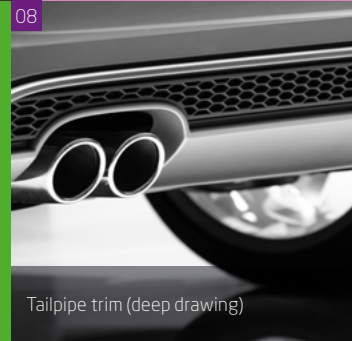
Rear mirror cover (deep drawing)

07



Door handle (stamping)

08



Tailpipe trim (deep drawing)



01

04

05

02

06

07

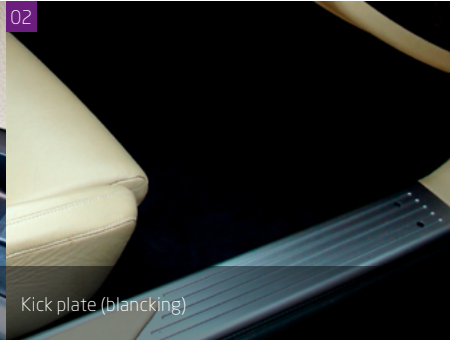
08

03

aperam



Car window control panel



Kick plate (blancking)



Boot lid plate (stamping)




Car interior details



Car door handle



Standards				
	Grade	ASTM	UNS	EN
Ferritics 	K36	436	S43600	1.4526
	K45	445	S44500	1.4621
Austenitic	304	304	S30400	1.4301

Chemical compositions (typical values)							
Grade	C	Si	Mn	Cr	Mo	Ni	Others
K36	0.020	0.40	0.25	17.50	1.25		Nb = 0.5
K45	0.015	0.25	0.25	20.20			Nb = 0.45 - Cu = 0.45
304	0.050	0.40	1.10	18.20		8.05	

Mechanical properties				
Grade	Tensile strength UTS (MPa)	Yield strength 0.2% YS (MPa)	Elongation (%)	Hardness HV5
K36	510	350	30	165
K45	490	340	31	160
304	630	310	54	160

Corrosion resistance					
Grade	Salt spray	Pitting corrosion	Crevice corrosion	Under deposit corrosion resistance	Salt spray + exhaust gases
K36	+++	+++	++++	+++	++++
K45	+++	+++	++++	+++	++++
304	+++	+++	++++	+++	++

Product range ⁽¹⁾			
Grade	Commonly used thickness	Commonly used width	Surface finish
K36	0.5 mm	from 9 mm to 400 mm	BA
K45	0.4 mm	from 9 mm to 400 mm	BA
304	0.4/0.5 mm	from 9 mm to 400 mm	BA

⁽¹⁾Please consult us for other grades, finishes and dimensions.

The aspect can be slightly different between K36/K45 due to the chemical composition. The choice of the grade will depend on the final aspect desired.

SURFACE FINISHES

OUR STANDARD OFFER



Uginox Bright (2R/BA)
Cold-rolled, bright-annealed and skinpassed.
For external and internal uses.

OUR ALTERNATIVE OFFER



Uginox Mat (2B)
Cold-rolled, annealed, pickled and skinpassed.
For external and internal uses.



Uginox Rolled-On (2J)
240-grit polish look like obtained by rolled-on process.
For semi-external use.



Uginox Scotch brite (2I)
Lightly brushed with wire rolls.
For semi-external use.



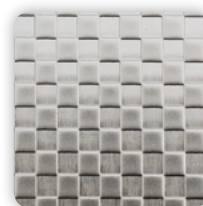
Uginox Polished (2G)
Dry polished with abrasive belts.
For semi-external use.



Uginox Duplo (2G)
Dry polished with abrasive belts and brushed with wire rolls.
For semi-external use.



Uginox Linen (2J)
Etched linen finish obtained by cold rolling with special rolls, followed by a final anneal.
For internal use.



Uginox Squares (2M)
Etched chequer patterned finish obtained by cold rolling with special rolls, followed by a final anneal.
For internal use.

Contact

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