

# Not just aluminium, Novelis Aluminium.™

Novelis is the world's largest producer of rolled aluminium and the global leader in beverage can recycling. We are a growth-oriented company, drawing upon our industry-leading technology and expertise to develop and deliver an expanding portfolio of premium rolled aluminium products. Novelis is an important part of the worldwide Aditya Birla Group of companies. By partnering with our customers to bring innovative products to market, by being a leader in recycling, and by operating with a mindset of sustainability, Novelis makes the world lighter, brighter and better.

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Certified to DIN EN ISO 9001, DIN EN ISO 14001,  
DIN EN ISO 50001 und OHSAS 18001.

All the information and technical data given reflect  
the situation and our experience on the date when  
this brochure went to print.  
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# A new Generation of Novelis anodising qualities



# Novelis Novelis



# J57S UP<sup>®</sup> - the new anodising quality for innovative and demanding architectural designs



Anodised aluminium is the perfect material for high quality facades, roofs and interior cladding where attractive and high quality designs are required.

## The key properties of anodised aluminium:

- Decorative, with permanent metallic gloss
- Corrosion resistant (in neutral pH range) and weather resistant
- Firm bond with the metal surface, therefore no peeling, chipping or corrosion
- Non-toxic (hot-water sealing)
- Electrically insulated
- Highly recyclable



For high quality and attractive architectural applications, a special alloy is needed, which Novelis supplies successfully all over the world under the product name „J57S<sup>®</sup>“ and now we introduce the enhanced version, J57S UP<sup>®</sup>. J57S UP<sup>®</sup> was specifically developed for architecture in order to produce high quality anodised facades. Novelis aluminium can be coloured using either the electrolytic or the immersion process.

Like its predecessor, the new alloy has its chemical composition controlled within very narrow limits so that the anodised facade elements are consistent with their distinctive metallic appearance and offers optimal uniformity in colour and gloss levels.

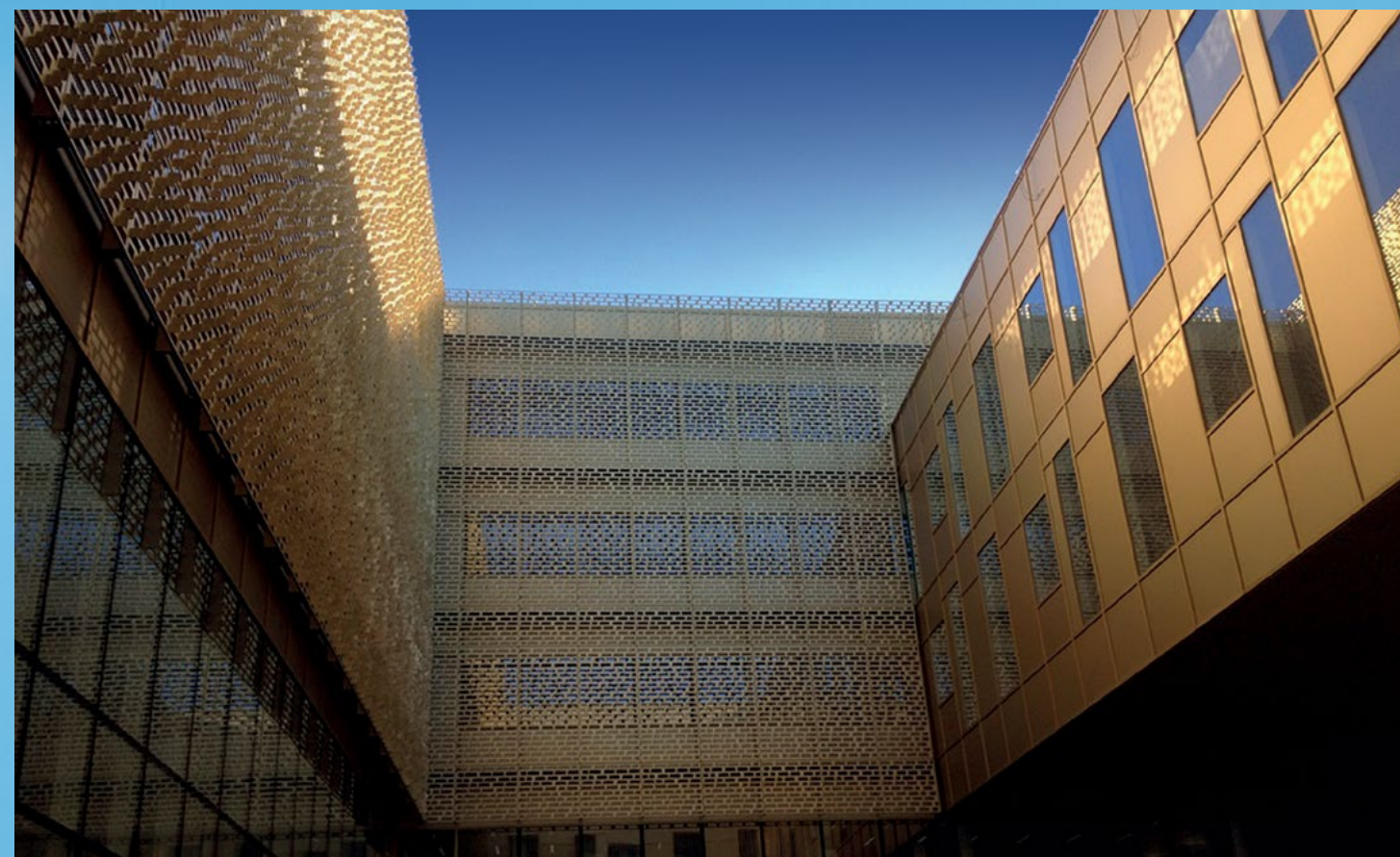
## What is new?

The chemical composition of J57S UP<sup>®</sup> and the process parameters in the Novelis mill are particularly tuned to using a deoxidation process - in order to remove acid sulphur, hydrogen peroxide or nitric more easily. It also prevents streaking and other effects, which are caused by an incomplete pickling on the surface.

The new generation J57S UP<sup>®</sup> is the ideal material for anodisers; the ease of handling through their process and delivering an optimal surface result. The consistent colour and gloss consistency exceeds the high quality of the predecessor product J57S<sup>®</sup>.

J57S UP<sup>®</sup> can be batch-anodised after fabrication, such as bending, cutting, drilling, etc. The brilliant metallic appearance of the surface differentiates it from commercial quality and the new J57S UP<sup>®</sup> alloy.

Impressive building references worldwide demonstrate the diversity of the possibilities, the preceding generation of J57S<sup>®</sup> provided for interior or exterior architecture.



## Processing guidelines

The client and the anodiser have to agree upon the range samples.

During the production of the elements it is important to ensure that the installation on the facade is done in the same direction.

The Novelis logo on the protective foil faces in the rolling direction. The marking on the reverse shows the batch no., direction of rolling, J57S UP<sup>®</sup> and Novelis which remain visible even after anodising. Welding, soldering and among others should only be done on unseen surfaces as the heat generated can change the grain structure and this could become visible after anodising.

## Performance of the new anodising quality:

- Excellent bending properties, even with small internal radii (min. 1 x material thickness at 90°)
- Availability at short notice
- Brilliant metallic anodised surface
- Fine grained, homogeneous structure
- Colour and gloss consistency is assured even when mixing materials from different production batches
- Narrow tolerances of the chemical composition and manufacturing parameters
- Enhanced and optimised anodising performance
- Chemistry in accordance with EN 573-3 (AA5005)
- Material and dimensional tolerance in accordance to EN 485-1, EN 485-2, EN 485-4

## Technical Data

### Physical properties of the base material

Modulus of elasticity: approx. 70.000 MPa  
Density: approx. 2.7 t/m<sup>3</sup>  
Coefficient of thermal expansion: 0.0236 mm per Kelvin and meter

### Dimensions

Sheet thicknesses: 0.8 to 3.0 mm (temper H14) and 4.0 mm (temper H12, applies only to J57S UP<sup>®</sup>)  
Width up to 2.000 mm, only to 3.0 mm sheet thickness  
Length up to 6.000 mm possible

### Fire protection

J57S UP<sup>®</sup> is not combustible (according to 96/603/EG)

### Certificates

DIN EN ISO 9001:2008  
Certificate of non-radioactive Al products  
DIN EN ISO 50001  
EU Declaration

