

NOVELIS Coil anodised B73A® Product datasheet

Novelis coil-anodised aluminium B73A is a perfect choice for both decorative and functional end uses. B73A is based on proven coil anodising technology using our B57S substrate.

1 GENERAL PRODUCT PROPERTIES

- Non flammable according to 96/603/EG and non combustible according to DIN 4102
- Non compatible with foodstuff according to DIN EN 14392
- Fully recyclable

2 PHYSICAL PROPERTIES

Young's modulus: approx. 70.000 MPa

Density: approx. 2,7 t/m³

Thermal expansion 0,0236 mm

coefficient: per Kelvin and meter

Weldability*: good to moderate

with SG-AIMg3

*(Welding is likely to cause localised removal of the anodic layer which may result in micro-cracking)

3 CHEMICAL COMPOSITION ACCORDING TO EN 573 PART 3

Alloy: B57S (DIN EN AW 5005A AlMg1-C)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	other	total
0.30	0.45	0.05	0.15	0.7-1.1	0.10	0.20	0.05	0.05	0.15

4 MECHANICAL PROPERTIES

Sheet thickness: 0.5 - 2.5 mm (Temper H14), 3.0 mm and 4.0 mm (Temper H12)

Strength values

Strength values according to EN 485-2						
Temper	Thickness (mm)	Tensile strength R _m	Yield strength R _{p0,2}	Elongation A ₅₀		
H14	0.5 - 1.5	145 - 185 MPa	≥120 MPa	≥2%		
H14	2.0 - 2.5	145 - 185 MPa	≥ 120 MPa	≥3%		
H12	3.0 - 4.0	125 - 165 MPa	≥ 95 MPa	≥5%		

	Typical	strength values (no w	arranty)		
Temper	Thickness (mm) Tensile strength		Yield strength R _{p0,2}	Elongation A ₅₀	
H14	0.5 - 1.5	165 MPa	155 MPa	≥4%	
H14	2.0 - 2.5	165 MPa	155 MPa	≥5%	
H12	3.0 - 4.0	140 MPa	125 MPa	≥7%	

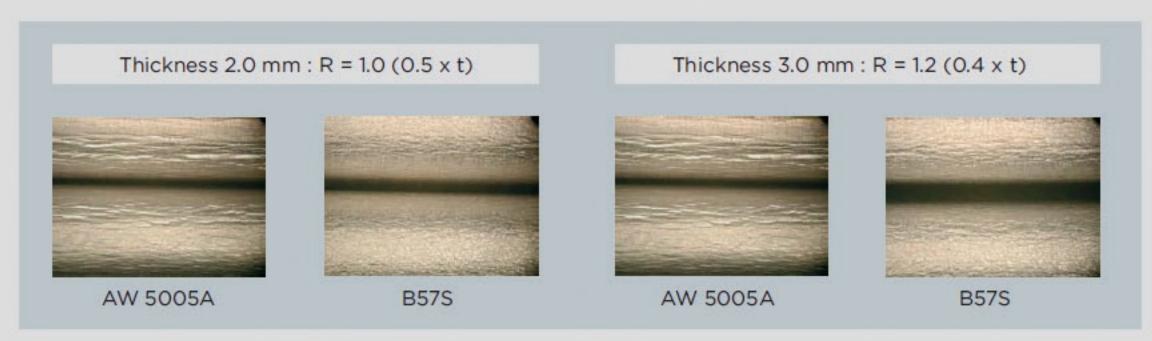
Bending radii at 90°:

R = 1x t: The inner bending radius (R) is equal to the sheet thickness (t). Please note: Due to the hardness of the anodic film, crazing can occur during extreme bending or forming. To minimise the effect more information is available on request.

Bending test at 180° according to EN ISO 7438:

Comparison of the standard quality AW 5005A versus anodising quality using B57S as the substrate.





5 DIMENSIONS AND TOLERANCES

Sheets

Sheet sizes						
	1.0	1.5	2.0	2.5	3.0	4.0
1.000 mm x 2.000 mm						
1.250 mm x 2.500 mm						
1.500 mm x 3.000 mm						
1.500 mm × 4.000 mm						
2.000 mm x 4.000 mm						

Dimensional tolerances for width, length, flatness and squareness in accordance with the DIN EN 485 part 4.

6 ANODIC LAYER

- consisting of aluminium oxide / hydroxide
- anodising E6/EV1 (natural finish) with a layer thickness of min. 10 μm or min. 15 μm on the upper side
- the anodic layer becomes an inherent part of the aluminium surface and is harder than the aluminium
- layer thickness inspection according to the ISO 2360
- typical gloss value by 60° according to ISO 7668: 20 to 30 units
- sealing testing according to ISO 2143 resp. ISO 3210

7 SURFACE

- printed UV-resistant 80 µm protective film with rolling direction
- decorative surface is warranted for the upper side acc. ISO 7599
- lightly oiled on the top surface
- surface is inspected for freedom from defects after the anodising process according to ISO 7599

8 CORROSION RESISTANCE

The following corrosion tests are carried out to confirm the excellent corrosion resistance of the anodised surface:

- Neutral salt spray test 1.008 h according to ISO 9227
- Kesternich test 1.000 h according to ISO 6988 (SO2 Atmosphere)
- UV test 1.000 h according to ISO 11341
- Weathering test 1.000 h (tropical test) according to DIN 50017

Depending on the process micro-cracks can occur transverse to the rolling direction but, the corrosion resistance remains unaffected.

B73A is corrosion resistant in the pH range from ~ 5.5 to 8.

A filiform corrosion cannot occur due to the joined anodic layer.

9 PACKAGING UNITS

The packaging units have a target weight of approx. 1t.

Depending on the length of the coil strip, smaller packages can be produced.

Packages are identified with the green label B73A on the tab.



NOVELIS is the world's largest producer of rolled aluminum 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 aluminum 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.

www.novelis.com

