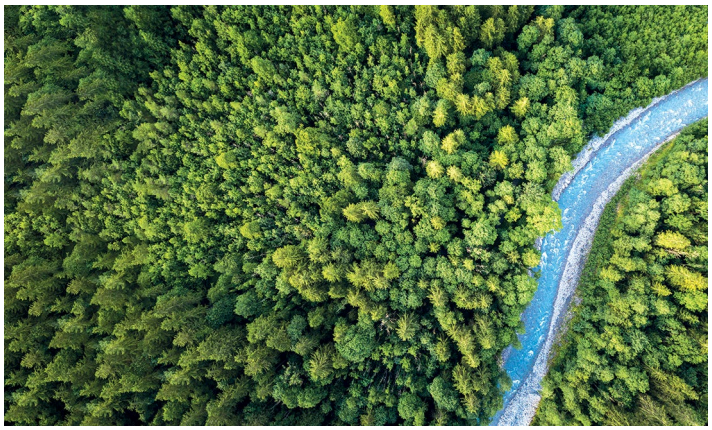
Novelis HRC57S®

Anodizing quality Novelis HRC57S® is the AlMg1 quality for decorative batch anodizing with very good bending properties and a recycled content of more than 90%.
Due to this high-recycled content Novelis HRC57S® is a product solution belonging to the product family AL:sust™. The Novelis Europe Specialties brand AL:sust™ features innovative sustainable, low-carbon aluminium product solutions with a recycled content of at least 80%.



1. General product characteristics

- Recycled content > 90%
  (pre- and post-consumer scrap, recycled content refers to the ingot)
- Non-combustible according to DIN 4102 respectively 96/603/EG, classification into the best fire protection class A1 (non-combustible in non-dispersed form)
- Contact with food possible according to DIN EN 602
- Highly recyclable

2. Physical properties

- Modulus of elasticity: approx. 70,000 MPa
- Density: approx. 2.7 t/m³
- Thermal expansion coefficient: 0.0236 mm/Kelvin/m
- Electrical conductivity: 23 to 31 * 10^6 S/m
- Weldability: well to moderately suitable with SG-AlMg3 (structural changes, which become visible during anodizing, possible due to heat input)

4. Chemical composition according to EN 573 part 3

Alloy: HRC57S® (DIN EN AW 5005 AlMg1-B)

Composition in weight percentage (max.)									
Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	oth.	tot.
0.30	0.70	0.20	0.20	0.5-1.1	0.10	0.25	0.05	0.05	0.15

5. Mechanical properties

Sheet thickness: 1.0 to 2.5 mm (temper H14) and 3.0 and 4.0 mm (temper H12)

Strength values

Strength values according to EN 485-2				
Temper	Gauge (mm)	Tensile strength Rm	Yield point Rp 0.2	Elongation A50
H14	1.0-1.5	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 warranty)				
Temper	Gauge (mm)	Tensile strength Rm	Yield point Rp 0.2	Elongation A50
H14	1.0-1.5	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 %

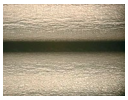
Bending radii at 90° according to EN ISO 7438

R = 1 x t: The inner bending radii (R) are equal to the sheet thickness (t).

AL:sust™ by Novelis

Bending radii at 180° according to EN ISO 7438

Comparison between standard quality AW 5005 and the anodizing quality Novelis HRC57S®.

Sheet thickness 2.0 mm: R = 1.0 (0.5 x t)		Sheet thickness 3.0 mm: R = 1.2 (0.4 x t)	
			
AW 5005A	HRC57S® HRC73A®	AW 5005A	HRC57S® HRC73A®

5. Dimensions and tolerances

Sheets

Sheet sizes	1.0	1.5	2.0	3.0
1,000 mm x 2,000 mm	■	■	■	■
1,250 mm x 2,500 mm	■	■	■	■
1,500 mm x 3,000 mm	■	■	■	■

Dimensional tolerances for thickness, width, length, flatness and squareness according to DIN EN 485 part 4.

6. Surface

- Plain rolled surface „mill finish"
- Slightly oiled surface
- Printed UV-resistant 80 µm protective film (rolling direction = in the direction of the arrow)
- Surface is evaluated for freedom from defects after the anodizing process according to DIN 17611

7. Packaging units

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

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

Contact Novelis

Novelis Deutschland GmbH
Hannoversche Str. 1, D-37075 Göttingen
Tel +49 551 304-0
sales.goettingen@novelis.com

novelis.com

Novelis

Certified according to:
DIN EN ISO 9001, DIN EN ISO 14001, DIN EN ISO 50001, OHSAS 18001