Novelis HRC73A[®]

Novelis pre-anodized HRC73A[®] is the AlMg1 quality with decorative anodizing with very good bending properties and a recycled content of more than 90%. Due to this high-recycled content Novelis HRC73A[®] 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)
- Highly recyclable

2. Anodizing process characteristics

Latest technology treatment developed by ALMECO for a sustainable product value chain:



- Environmentally friendly and sustainable anodizing process
- Reduced carbon emissions and energy waste due to advanced energy management
- highly sophisticated water cleaning system, zero waste (zero liquid discharge) system
- 90% less fresh water consumption (compared to conventional anodizing lines)
- certification ISO 14001



3. 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 * 10⁶ S/m
- Weldability: well to moderately suitable with SG-AIMg3

4. Chemical composition according to EN 573 part 3

Alloy: DIN EN AW 5005 AIMg1-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	0.30	0.15

5. Mechanical properties

Sheet thickness: 1 to 2.5 mm (Temper H14) and 3.0 (Temper H12) **Strength values**

Strength values according to EN 485-2

Stichight values according to EN 405 E						
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	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	140 MPa	125 MPa	≥ 7 %



(R)

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). During bending micro-cracks could occur and could be visible as bright lines in the bending area.

6. Dimensions and tolerances

Sheets

Sheet sizes	Thickness (mm)					
	1.0	1.5	2.0	2.5	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.

7. Surface

- Decorative anodized surface with typical layer-thickness between 10 – 20 µm
- Decorative surface is warranted for the upper side according to DIN EN 12373-1
- 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
- In accordance with the Novelis processing and cleaning guidelines the color-uniformity of different batches is warranted as well as the brilliant surface with metallic character after the anodizing process
- Novelis only takes warranty of a decorative and homogeneous appearance for the visible side (good side)



8. Packaging units

The packaging units have a target weight of approx. 1 t and disposable packaging is used.

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

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