



# Wire Rod

Combining high-quality products, smart solutions  
and great services for your long-term success





# Building progressive Partnerships

For more than a century, Hydro's history has been rooted in innovation and sustainable technological development.

As a global player with local expertise we combine high-quality products, smart solutions and great service to enable our customers to reach their goals. In close collaboration we develop advanced products and solutions to meet their specific needs, always aiming to exceed expectations. By supplying the necessary resources, services and high-quality input materials, we help our customers to deliver on their promises and meet challenging market developments. Progressive partnerships and long-term relationships form the basis to create optimum products, which help to improve performance and ultimately our customers' business.

# Flexibility and reliability

The Wire Rod casthouse supplies each year about 70.000 tons of aluminium EC Grade wire rod to the European market from Karmøy metal plant in Norway.

Our advanced technological expertise combined with accurate production equipment ensure a high and consistent product quality, using the most climate and energy-efficient aluminium production technology in the world. Our agile and responsive logistic team is a warrant for on-time deliveries.

## Our standard Wire Rod

### Mechanical and electrical properties Designation

EN1715	Hydro Temper	UTS Target (MPa)	Min. Elongation (%)	Min. Conductivity (%) IACS)	Max. Resistance (nOhm x m)
O	HA6	max. 75 <sup>1)</sup>	25	63.3	27.25
H11	HA8	82.5	15	61.9	27.85
H11	HA8	87.5	15	61.9	27.85
H11	HA8	92.5	15	61.9	27.85
H12	HA10	97.5	12	61.5	28.01
H12	HA10	102.5	12	61.5	28.01
H12/13	HA10/11	107.5	10	61.5	28.01
H13	HA11	112.5	10	61.5	28.01
H13/14	HA11/12	117.5	8	61.5	28.01
H14	HA12	122.5	8	61.5	28.01
H14	HA12	127.5	8	61.5	28.01

1) Homogenized.



  
**Hydro**

# Closer to the customer

We continuously increase the efficiency of our production systems and improve our range of services to meet our customers' individual requirements. Our market team is close at hand to provide fast and professional customer service:

- Technical support
- Access to R&D resources
- Commercial services
- Market information
- Logistic solutions

Many of our services are accessible 24/7 via our on-line customer service portal. This easy-to use facility gives customers added flexibility and helps to simplify their daily working routines. Customers can get an overview of their contract details, material certificates and up-to-date transport information, place new orders, carry out pricing and take advantage of our broad range of customized services. These optimized solutions add further value and help build and reinforce customer relationships.

## Alloys Designation

Alloy	Hydro Numerical	Standard
AW-EAL 99.7	AW-1370	137015
AW-EAL 99.7	AW-1370	137004

## Rod diameters and tolerances

Diameter target (mm)	Lower Tolerance (mm)	Upper Tolerance (mm)	Ovality (mm)
9.5	9.0 (5%)	10.0 (5%)	0.4 (4%)
12.0	11.4 (5%)	12.6 (5%)	0.5 (4%)
19.0	18.0 (5%)	20.0 (5%)	0.8 (4%)
25.0	23.8 (5%)	26.2 (5%)	1.0 (4%)

## Target values for Ultimate Tensile Strength (MPa) Designation

Hydro Temper	EN1715	UTS range (MPa)	Max. 75	82.5	87.5	92.5	97.5	102.5	107.5	112.5	117.5	122.5	127.5
HA6	0	60-80	•										
HA8	H11	80-95		•	•	•							
HA10	H12	95-110					•	•	•				
HA11	H13	105-120							•	•	•		
HA12	H14	115-130									•	•	•

# Coil dimensions and weights

Our wire rod is shipped with the dimensions and weights shown in the tables below. Each coil is clearly marked with alloy composition, weight, charge number, coil number, tensile strength, rod dimension and production date. In addition to this we could agree to adjust details according to your specification.

Please contact one of our sales offices for further information.

Coil Orientation	Pallet Type	Storage Capacity
Eye to sky	Small cross pallet (2mt)	3 in height
	Large cross pallet (3mt)	2 in height
Eye to wall	Karmoy pallet (2-3mt)	1 in height

## Coil Dimensions

Coil Weight (kg)	Coil Height (mm)	Coil Outer Diameter (mm)	Coil Inner Diameter (mm)
1900-2900	865	1300-1600	540

## ASI

Hydro is an active member of the Aluminium Stewardship Initiative (ASI). ASI's mission is to recognize and collaboratively foster the responsible production, sourcing and stewardship of aluminium. We have been involved at all stages in the multi-stakeholder development of ASI standards to date as well as ASI's certification program. The third party certification platform was launched in December 2017.

Hydro is currently in the process of certifying in total 15 plants and the ambition to offer fully certified aluminium is core to Hydro's strategy of offering the most sustainable products and solutions to the market.

## Hydro's low carbon products

Hydro has an industry-leading climate strategy that has resulted in producing some of the aluminium with the lowest energy consumption and the lowest emissions in the world. Through the use of renewable power and modern technology we are able to produce cleaner aluminium than ever before. Hydro is pushing the boundaries for low carbon aluminium and the use of consumer scrap to create products helping our customers on the path to zero emissions.

# Quality and environmental awareness

Quality Assurance in all parts of our production ensures accuracy and consistency in all our products. Good working environments, low emission and discharge rates, and optimal energy efficiency ensure that our production of wire rod has the least possible effect on the environment and on humans.

Our focus on quality and our environmental awareness are documented in the certificates for the following standards:

- ISO 9001:2015 - Quality
- ISO 14001:2015 - Environment
- ISO 45001:2018 - Operating health and safety
- ISO 50001:2018 - Energy

## Hydro REDUXA

Hydro REDUXA is our series of low-carbon aluminium. Using renewable energy sources like hydro power, we reduce the carbon footprint per kg aluminium to less than a fourth of the global average. The result is aluminium with one of the world's lowest carbon footprint to date.

- Hydro REDUXA 4.0 has a maximum carbon footprint of 4.0 kg CO<sub>2</sub> equivalent per kg aluminium produced.
- Hydro REDUXA 4.0 is verified according to ISO 14064 by DNV GL, covering all carbon emissions from bauxite mining and alumina refining to the production of aluminium in electrolysis and casting.



# Where to find us

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*We are aluminium*

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Hydro is a fully integrated aluminium company with 35,000 employees in 40 countries on all continents, combining local expertise, worldwide reach and unmatched capabilities in R&D. In addition to production of primary aluminium, rolled and extruded products and recycling, Hydro also extracts bauxite, refines alumina and generates energy to be the only 360° company of the global aluminium industry. Hydro is present within all market segments for aluminium, with sales and trading activities throughout the value chain serving more than 30,000 customers. Based in Norway and rooted in more than a century of experience in renewable energy, technology and innovation, Hydro is committed to strengthening the viability of its customers and communities, shaping a sustainable future through innovative aluminium solutions.