

Products

**More than  
just flexible**

Novelis OHLER<sup>®</sup> Flexible Tubes

Novelis

# Novelis Your specialist

## Aluminium solutions with added value

**We meet every challenge with our ability to create innovative and customized solutions**

The Ohle plant constitutes an important part of Novelis Deutschland GmbH. Founded in 1889 as Ohler Eisenwerk – the first products were thick rolled plates and multi rolled thin sheets. In the mid 1950s a new dynamic business concept with the objective of expansion into new business and product areas was adopted.



### **OHLER® Flexible Tubes**

The operating area OHLER® Flexible Tubes was founded in 1959 and today contributes immensely to making Novelis one of the leading manufacturers and suppliers for the international Automotive, Caravan and rolling mill industries. This success is based on superior production control and quality assurance resulting in premium standard products.

Continous aspiration for innovation and the development of our manufacturing technology and techniques, in close co-operation with our development partners, make us not just an outstanding manufacturer of flexible products, but your partner of choice. Work with us!

### **Automotive**

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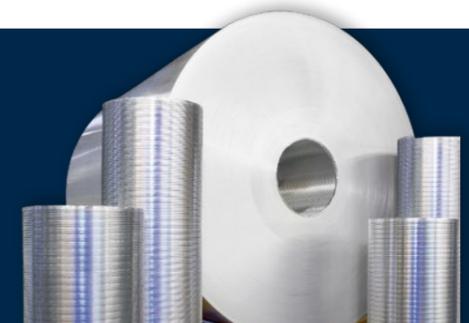
### **Caravans and Motorhomes**

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### **Rolled Products**

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# Automotive

## Our customers build on our flexibility

**Our products are leading state-of-the-art technologies in the field of heat protection tubing, ventilation and exhaust systems**

Novelis supplies the international automotive manufacturers and their first tier component suppliers with a wide range of highly efficient and cost effective products. Due to our fast response to orders for materials and products we stand out as a preferred supplier. With the application of our sophisticated distribution logistics system we are able to significantly minimize the time-to-delivery.

**Just-In-Time is not just a phrase – it is our philosophy!**

### Our core products:

- Heat protection tubes, sleeves and shields, resistant to both convection and radiant heat
- Ventilation tubes for fresh and warm air circulation to the passenger area
- Flexible exhaust tubes, for auxiliary heating systems also insulated
- Inlet and exhaust sound absorbing systems

The high diversity of applications requires an excellent level of expertise and reflects our abilities for development and innovation. These competences result in smart, customer-tailored solutions. Our development teams carry out each project with discipline, passion and enthusiasm. Partnering closely with our customers allows us to produce ideal solutions and provide optimum support.



# Caravans and Motorhomes

Our solutions travel world-wide

## Security, comfort and flexibility during your journey

The European motorhome and caravan manufacturers as well as their suppliers and sales partners rely on OHLER® Flexible Tubes for circulation and distribution of air and exhaust gases. In these segments we have a close relationship with the leading manufacturers of petrol, diesel and liquid gas heating systems. We offer extensive know-how and a wide range of innovative solutions – many of them with production proven status.

## Our core products in this area:

- Flexible tubes and hoses for air circulation and warm air distribution
- Flexible exhaust tubes for heating appliances, can be also supplied with sound absorbing characteristics
- Insulated and heat resistant twin tubes

With over 50 years experience and strong co-operations with all industry leading manufacturers, we gained excellent know-how of all solid production processes.

## Our products set the industry standard for quality and reliability; consequently we give highest priorities to the following factors:

- outstanding product quality
- expert based development competence for each individual challenge
- optimal price-performance ratio
- high insulation properties for warm air tubes
- guaranteed on-time-delivery
- size accuracy according to customary industrial plastic components

In the future we will keep firmly to these principles as your trust is our driving force.



# Rolled Products

## OHLER® AL-COIL-CORE infinitely recyclable

### We combine environmental protection and economic advantages

Our patented aluminium coil core, OHLER® AL-COIL-CORE, is globally available and suitable for the coiling of all types of aluminium foil and strip.

Using this unique product makes a separation of residual material of the coil from the winding core needless. Instead, a fully compatible system was developed allowing joint recycling. Thus, the value of the recycled aluminium scrap ensures an additional cost benefit.

Moreover, the weight saving due to the low specific density of the aluminium core – compared with traditional paper and steel cores – simplifies handling immensely.

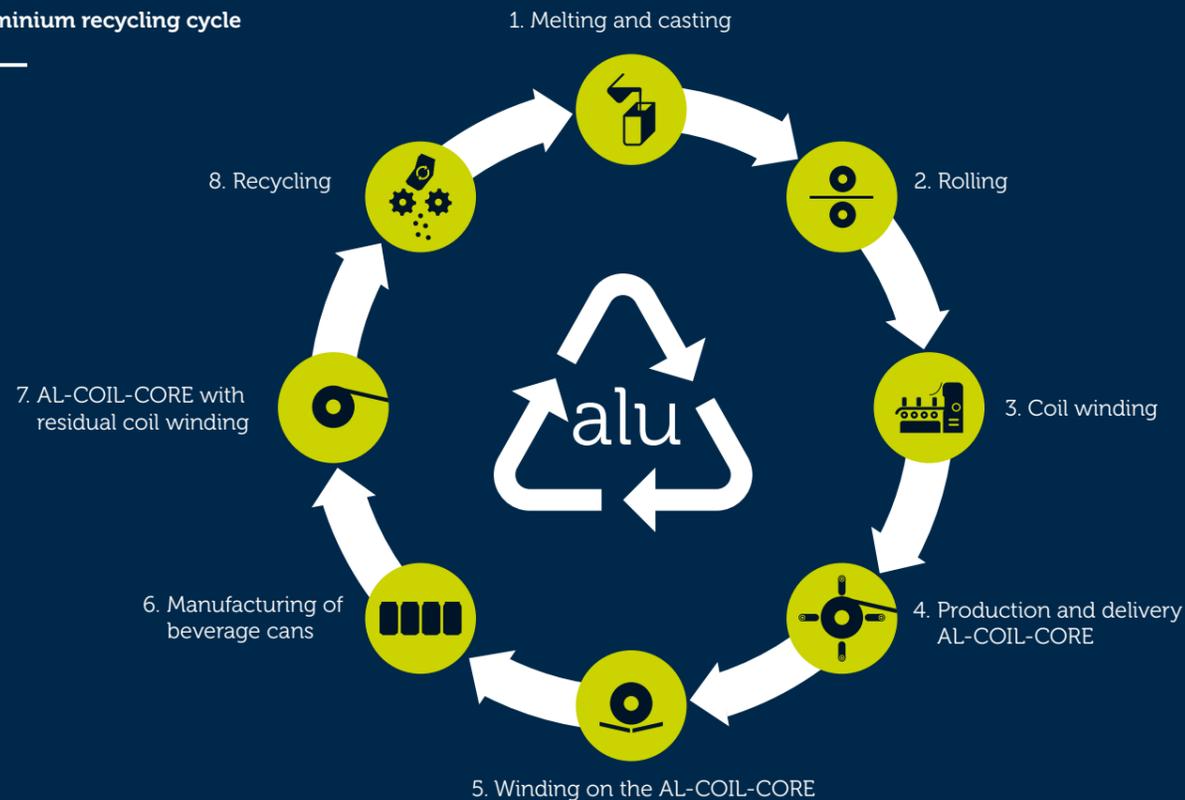
As aluminium is infinitely recyclable, it is the material of choice for balancing the demand of a growing economy with the need to preserve the environment. Therefore, recondition and disposal become more significant as the processing industry nowadays obtains credit for aluminium scrap value.



### OHLER® AL-COIL-CORE An assured innovation for the future

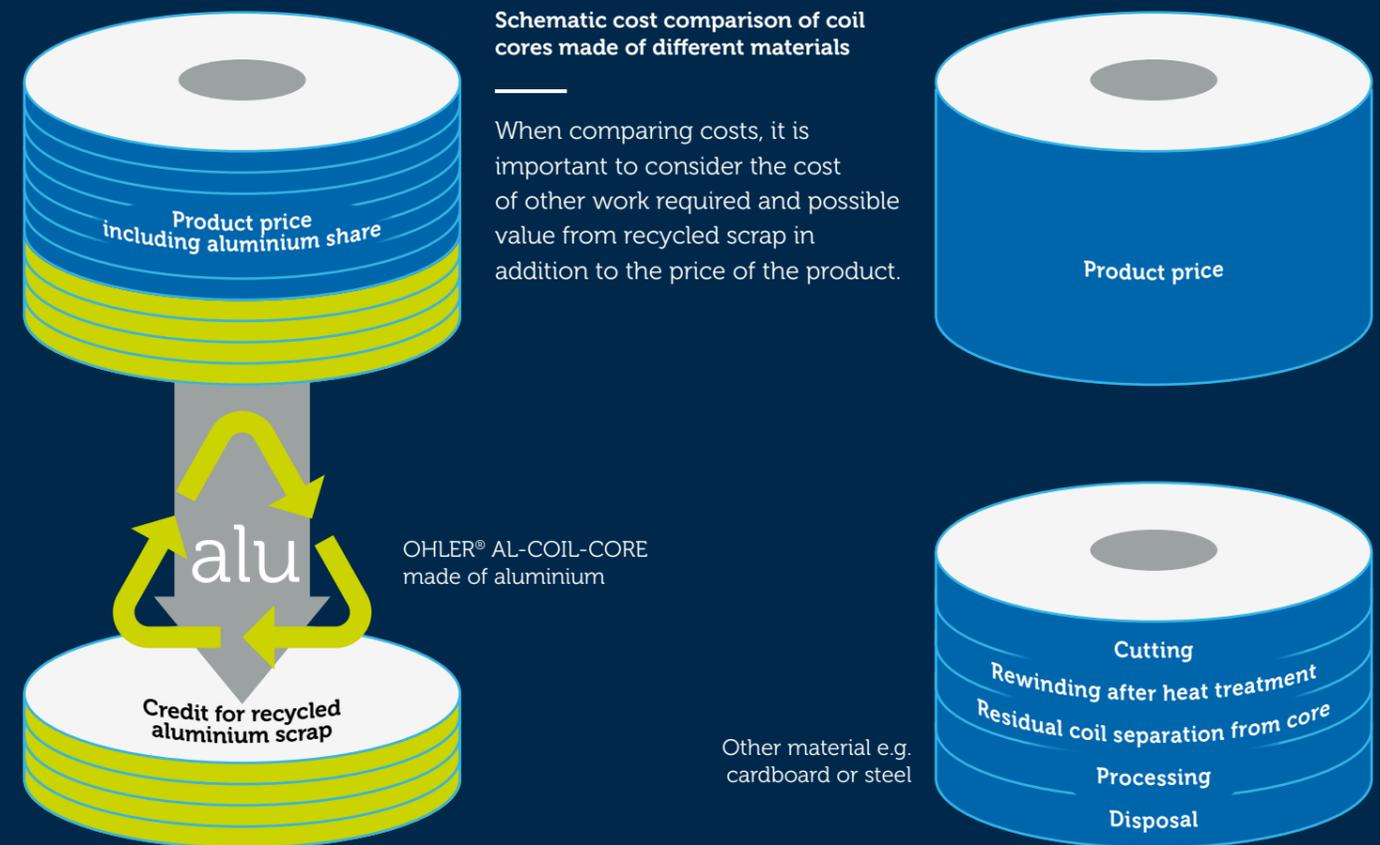
With the continuously rising costs of production and waste disposal the aluminium coil core meets all the critical economic criteria in these areas. Durability is combined with a positive effect on health and safety and benefits of processing ergonomics in the working environment, optimisation of the production cycle, all provide enormous benefits for potential users. Users of the OHLER® AL-COIL-CORE save hundreds of tonnes of natural resources and reduce the CO<sub>2</sub> emissions.

### Aluminium recycling cycle



### Schematic cost comparison of coil cores made of different materials

When comparing costs, it is important to consider the cost of other work required and possible value from recycled scrap in addition to the price of the product.



# Sustainability

## Our guiding principles for environment, health and safety

### Sustainable economic management is our top priority

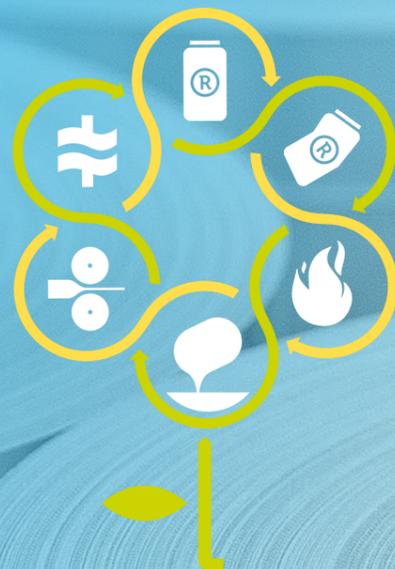
At Novelis, we are dedicated to supporting the success of our stakeholders, especially our customers, employees, shareholders and communities through excellence in environmental management, health, safety and quality (EHS&Q). In particular, we provide financial and human resources for continual improvement in our operations and business practices to:

- Achieve zero injuries and illnesses through prevention and risk reduction;
- Minimize our impact on the environment by reducing the use of natural resources and preventing pollution; and
- Enhance the quality and benefits of our products and services throughout their life cycle, especially through increased recycling.

### Novelis principles

At Novelis, we are passionate about the following guiding principles and hold every employee accountable and personally responsible to support this policy. We will:

- Anticipate and understand our customers' needs by challenging each other to question the status quo.
- Create an atmosphere that motivates each of us, our contractors and visitors to attend to our own health and safety and health performance regulatory requirements and maintain high standards for employee protection and welfare.
- Proactively seek to increase aluminium recycling wherever we do business.
- Build collaborative relationships with our key suppliers, customers and neighboring communities to foster continuous improvement and sustainable development.
- Measure our performance and procedures to evaluate the effectiveness of our efforts.



This policy is based on our values. Our focused actions will bring sustainable results and high performance.

# Our Product Portfolio

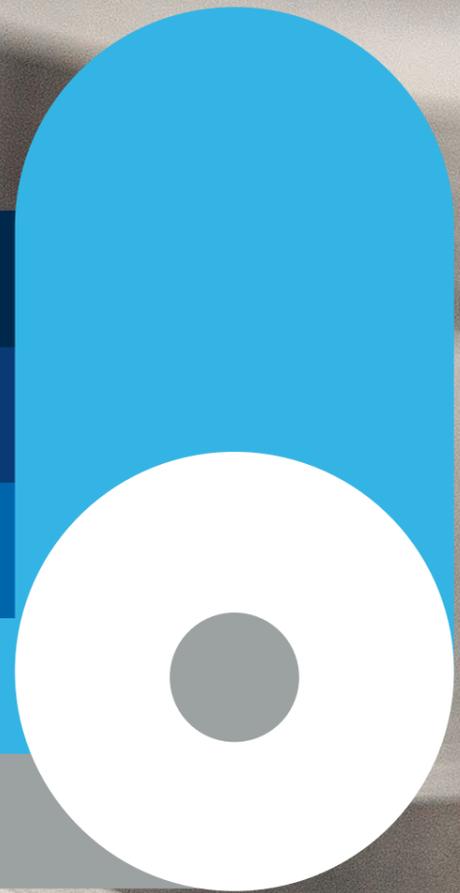
## Novelis know-how for your individual application

Long-time experience combined with constantly improved production processes and proven materials for customer-specific solutions.

Our possibilities of applications are as flexible as our tubes. Whether heat or cold, reflection or insulation, ventilation or fresh air and exhaust systems – we take on your challenges!

### Novelis OHLER® Flexible Tubes Product Portfolio

	<b>Heat Protection</b>	tubes hoses mats
	<b>Air Ventilation</b>	simple silenced insulated
	<b>Exhaust System</b>	simple silenced insulated
	<b>Insulation</b>	hoses mats
	<b>AL-COIL-CORE</b>	D.6





# Not just aluminium, Novelis Aluminium.™

Novelis Inc. is the global leader in aluminium rolled products and the world's largest recycler of aluminium. The company operates in ten countries, has approximately 11,500 employees and reported \$10 billion in revenue for its 2017 fiscal year. Novelis supplies premium aluminium sheet and foil products to transportation, packaging, construction, industrial and consumer electronics markets throughout North America, Europe, Asia and South America. Novelis is a subsidiary of Hindalco Industries Limited, an industry leader in aluminium and copper, and metals flagship company of the Aditya Birla Group, a multinational conglomerate based in Mumbai, India.

For more information visit [novelis.com](http://novelis.com) and follow us on Facebook at [facebook.com/NovelisInc](https://facebook.com/NovelisInc) and Twitter at [twitter.com/Novelis](https://twitter.com/Novelis).

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