Revealing what truly matters: environmental performance of cables

Discover Nexans' Low-Carbon Program: data transparency in support of low-carbon innovation for sustainable choices.

Nexans

The cable's environmental footprint at a glance

Invisible to the naked eye, a cable's environmental footprint is nonetheless very real. It comes into play at every stage from raw material sourcing to manufacturing, installation and end of life. This is why we created the Low-Carbon Program, a catalyst for low-carbon innovation and a guarantee of full transparency on Nexans' cables environmental footprint data.

Data transparency in support of low-carbon innovation

The Low-Carbon Programme embodies our ambition to drive the continuous improvement of the environmental performance of our products and services, while guiding sustainable innovation and informing market and customer decisions.

+25%
recycled copper in our low-carbon cables globally by 2028

Reliable and easily accessible environmental data

Accessing and understanding our products' environmental information is made easier through a simplified display integrated into our technical data sheets.

This display is based on a robust set of indicators derived from Life Cycle Assessments (LCA) and Product Environmental Profile declarations (PEP or EPD).

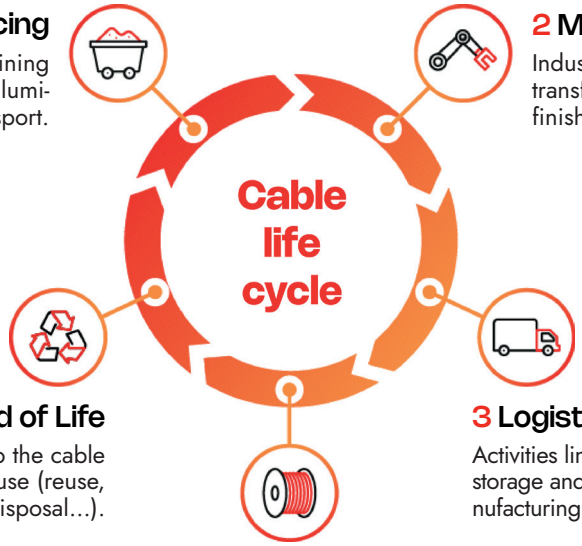
More than an information, it is a commitment

A commitment to producing differently, with greater transparency and an improved environmental footprint.

Analysing a cable's environmental footprint: the starting point of any responsible strategy

A cable's environmental footprint is based on a Life Cycle Assessment (LCA), a standardised evaluation method that provides a multi-criteria, multi-stage environmental assessment across the cable's entire life cycle.

5 key stages are analysed in the LCA:



1 Raw Material Sourcing

Operations involved in obtaining the raw materials (copper, aluminium, ...), including transport.

2 Manufacturing

Industrial processes used to transform raw materials into finished products, cables.

3 Logistics

Activities linked to cable transport, storage and distribution, from its manufacturing site, to the place of use.

4 Usage

The period during which the product is used by the consumer or end user. It should be noted that the average lifespan of a cable is 30 years.

5 End of Life

Treatments applied to the cable when it is no longer in use (reuse, recycling, disposal...).

At Nexans, each LCA is certified by an independent third party and published in the form of a Product Environmental Profile (PEP) or an Environmental Product Declaration (EPD). This rigorous framework provides our customers with a solid foundation of trust for their own low-carbon strategies.

PEP Ecopassport® declarations

As a founding member of the PEP programme, Nexans has been publishing rigorous environmental declarations for over 15 years. These standardised declarations are publicly available at:
http://www.pep-ecopassport.org//

How should a cable's environmental data be interpreted?

The environmental data display is a transparency tool for the environmental performance of Nexans cables during the cradle-to-gate phase:

- Clear, accessible information that is easily understood by all.
- Reliable and structured data derived from LCA analyses and PEP/EPD declarations.
- Enhanced indicators to assess the environmental performance of products and guide customers towards more responsible choices..

Product description

Identification of the range with the PEP reference.

Global carbon footprint (CO_2)

Amount of greenhouse gases (in CO_2 equivalent) emitted to produce 1 km of cable (« cradle-to-gate »).

Reduction Indicators

Low-carbon levers on the product (recycled metals and plastics*[1], metal origin*[2], etc.).

Additional information

Production sites or other specific commitments.

Nexans U-1000 AR2V Twistal

Nexans ref. : 10218438
Country ref. : 01272471
EAN : 3427670022281
PEP : NXNS-00040-VO3.02-FR
Reference product : Twistal U-1000 AR2V 4x1x240 rALU

LOW CARBON

This product is part of Nexans' **low-carbon** range: a selection of products that guarantee a reduction in carbon footprint, subject to strict eco-design criteria.

Read more +

GLOBAL CARBON FOOTPRINT	RECYCLED ALUMINIUM RATIO	RECYCLED PLASTIC PART	LOW-CARBON ALUMINIUM FOOTPRINT	MANUFACTURING SITE
14,7 T EQ. CO_2	10%	10%	≤ 7.3 T CO_2 EQ./ T AL	
• Amount of CO_2 emitted Cradle to Gate (raw material collection and manufacturing), for the production of 1km of cable.	• Percentage of recycled metal in the cable conductor.	• Percentage of recycled plastic contained in the insulation.	• 7.3t CO_2 / t represents a 15% reduction compared to the European average used (8.6t CO_2 / t aluminium – International Aluminium Institute). Read more +	• Manufactured in Jeumont.

*1 Percentage of recycled metal in the cable conductor and percentage of recycled plastic in the cable sheath or insulation.
*2 Low-carbon energy mix.

How does Nexans **concretely reduce the carbon footprint** of its cables?

CO_2 emissions generated by a cable vary across the different stages of its life cycle. To reduce the carbon footprint of its cables, Nexans focuses on the most impactful cradle-to-gate levers:

The integration of recycled materials

Recycled metal, whether aluminium or copper, is the most impactful raw material. Metal conductors account for between 70% and 90% of the total cradle-to-gate carbon footprint*[3]. Integrating recycled metal and plastic involves:

- A very high level of purity to ensure performance and compliance.
- Structuring a new value chain to secure raw material supply.
- Optimising recycling and manufacturing processes.
- Contributing to the circular economy by preserving resources in a context of scarcity.

The sourcing of low-carbon-footprint aluminium

- Aluminium produced through manufacturing processes powered by a decarbonised energy mix (nuclear, solar, hydro, etc.).
- For example, 100% of our aluminium cables in France use low-carbon aluminium*[4].

The continuous improvement of production processes across our industrial sites

- Reducing energy consumption.
- Adopting more efficient production processes.
- Limiting raw material losses.

-40%

carbon emissions on aluminium products within the Nexans TWISTAL range in France*[5]

*3 "Greenhouse gas emissions, expressed as CO_2 equivalent, cradle-to-gate, metal conductor, for the design of energy network (low-voltage) or building cables."
*4 "7.3 tCO_2/t represents the European average (International Aluminium Institute, 2019). The product reference value is calculated based on the final average value of aluminium. The reductions achieved are linked to the use of decarbonised energy sources."
*5 "CO_2 reduction achieved on the Nexans U1000 AR2V TWISTAL 4x1x240 rALU product range (PEP ref.: NXNS-00040-V03.02-FR), compared with the same product reference without the improvements: recycled raw materials and aluminium produced using decarbonised energy sources."

The Nexans Low-Carbon product range

Low-carbon: the assurance of a reduced carbon footprint

Products bearing the Low-Carbon symbol contribute to a circular and sustainable economy through the activation of levers ensuring:

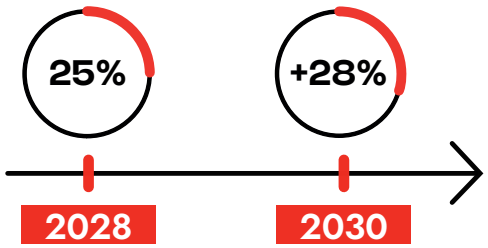
- Minimum integration of 10% recycled copper or aluminium

or

- 100% sourcing of so-called "low-carbon" aluminium (for aluminium products). Aluminium with a CO_2 emission factor lower than or equal to 7.3 tCO_2/t*

A continuous improvement approach

- As part of a continuous improvement approach and with a clear ambition to design products with a low-carbon footprint, Nexans structures its Low-Carbon Programme around two stages of recycled copper integration:



"7.3 tCO_2 represents a 15% reduction compared with the European average (8.6 tonnes of CO_2 per tonne of aluminium) – [Source: European Aluminium Association – February 2018 – Environmental Profile Report]. The product reference value is calculated based on the final average value for aluminium. The reductions achieved are linked to the use of decarbonised energy sources.

Concrete benefits for every player in the electrical value chain

The Low-Carbon Programme goes beyond a simple transparency requirement: it establishes itself as a strategic lever for performance and compliance across the entire value chain. It enables each player: the buyer, distributor and installer, to address their specific challenges: managing indirect emissions (Scope 3), anticipating regulatory developments, and strengthening the trust of customers and partners through an approach aligned with the Sustainable Development Goals.

Benefits for the market:

- Promoting understanding of product environmental performance and guiding customers towards informed choices. The Low-Carbon Programme makes data that was once reserved for specialists accessible to all.
- Promoting more responsible economic and operational models that support the circular economy.
- Unlike eco-scores, which rank products and assign them a rating or category (A–E), the environmental information provided by Nexans substantiates a product's performance through unequivocal data, without comparison or interpretation.

Benefits for customers (specialist distribution, construction, etc.):

- Making responsible purchasing choices for low-carbon cable products enables customers to reduce their indirect Scope 3 emissions related to purchased goods, a key category for managing their carbon footprint.
- Anticipating constantly evolving regulations, which are profusing and becoming increasingly stringent. Compliance with these current and future requirements (including the Digital Product Passport) is essential to avoid penalties and safeguard the company's reputation.
- Choosing low-carbon products with transparent environmental information enables our customers and partners to demonstrate their commitment to responsible purchasing, while placing sustainability at the heart of their approach.
- Strengthening legitimacy and trust among customers and partners who expect solutions aligned with sustainable development challenges.

ABOUT NEXANS

We are Nexans, a global leader in the design and manufacture of cable systems and services, from power generation to end-use applications. As a pure player in electrification, we are committed to safe, sustainable, and carbon-free electricity that is accessible to all. We provide innovation electrification solutions across the entire value chain. With 120 years of expertise, all our products are manufactured in France, serving electrical experts and professionals across the country.

At Nexans, we are committed to electrifying the future.
With impact.

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