

energon.

Advanced materials for demanding battery applications



Automotive-grade
manufacturing



Qualified
performance



Made in
Europe

A flexible packaging leader, now powering batteries

This is energon

energon is Constantia Flexibles' brand for battery materials used across multiple applications. The portfolio includes pouch cell laminates and cathode foils for battery applications. It builds on the company's expertise in aluminum and polymer processing, as well as its battery-material development capabilities.

Our expertise in aluminum, laminates, barrier films, and large-scale quality manufacturing transfers directly to battery materials. We combine IATF 16949 discipline with pharma-grade process control to deliver consistent, scalable performance.

Key benefits

- Customized solutions for individual cell design and process requirements
- Joint development from sampling to serial production
- European production for shorter supply chains
- Quality systems aligned with ISO 9001 and IATF 16949 requirements



Applications



E-mobility



Aviation



Consumer
electronics



Stationary
energy storage



SCAN ME

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Constantia Flexibles in a nutshell

We rethink packaging every day with the aim of reducing its environmental impact and supporting our customers' packaging goals. Developing packaging designed for recycling is an ongoing process that requires close attention to materials, design requirements, and evolving recycling infrastructure.

As a flexible packaging manufacturer, we work to manage and reduce the environmental impacts associated with our products and operations. Our efforts focus on specific measures across materials and processes, as well as collaboration across the value chain, to improve packaging circularity and meet applicable regulatory requirements.

#3

globally

#2

in Europe

37

production sites
in 18 countries

8,500+

employees
worldwide



energon.P

Pouch Cell Laminate



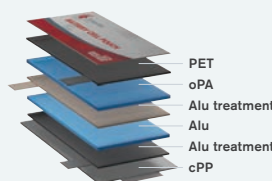
This is energon P

energon P is currently the only commercially available, qualified pouch cell laminate manufactured outside Asia. Developed through extensive qualification and testing programs, it provides battery manufacturers with an additional sourcing option supported by European manufacturing and established industrial capabilities.

Key benefits

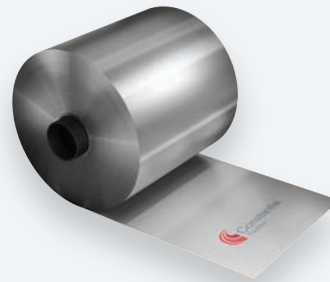
- High sealing performance through optimized PP layer
- Delamination-resistant multilayer structure with thermally stable adhesives and excellent electrolyte resistance
- Mechanical strength and flexibility for deep-forming processes
- Designed for serial production environments

Structure & key specs

POUCH CELL LAMINATE	THICKNESS	FORMING DEPTH
	155/185 µm	Up to 13 mm (394 x 104 mm punch)
	SEAL STRENGTH CPP/CPP	PUNCTURE STRENGTH
	>120 N/15 mm	>18 N (JIS Z 1707)
	LAMINATION STRENGTH · ALU/CPP	WIDTHS
	>18 N/15 mm	80–1,600 mm

energon.C

Cathode Foil



This is energon C

energon C is Constantia Flexibles' cathode foil for battery applications. Developed for efficient cathode coating and reliable processability, the product combines battery-material know-how with decades of aluminum-processing expertise and established manufacturing capabilities.

Key benefits

- Optimized for efficient cathode coating and consistent material performance
- Reliable processability in demanding serial production environments
- Excellent machinability through high tensile strength and elongation
- Scalable manufacturing with widths of up to 1,800 mm

Structure & key specs

CATHODE FOIL	THICKNESS	CARBON EMISSION
	9.85–20 µm	<5 t CO ₂ e/t
Aluminum EN AW-1100, H18	TENSILE STRENGTH	ELONGATION
	>240 MPa	>2.0 %
	WETTABILITY	WIDTH
	>30 dyne	Up to 1,800 mm

More flexibility in material selection.

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ASI-certified aluminum available

Customers may select aluminum with optional ASI certification based on their specification requirements.



Low Carbon Aluminum

Aluminum with a carbon footprint of <5 t CO₂e/t, available on request.



Renewable electricity in production

Our energon production is powered by electricity generated from renewable sources.