

aperam

Pre-coated stainless steel for Fuel Cell stacks Binding performance and cost efficiency

"A Fuel Cell must use material that can act as an electrical conductor, is suitable for stamping and recycling, and enables mass production at a competitive price. Stainless steel ticks all of these boxes."



Automotive



Forklift truck



Train



Boat



Bus



Drone



Isolated Station

The Aperam Fuel Cell: your cost-effective solution for bipolar plates

Bipolar plates are produced via stamping, welding and coating one part at a time - a time-consuming and costly process. The Aperam solution streamlines this process and decreases costs by applying the coating directly to the stainless steel coil prior to stamping.

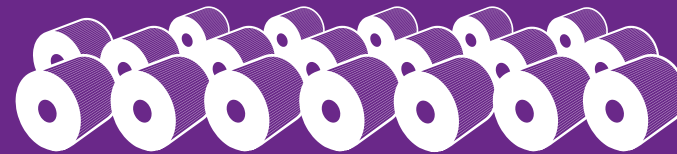
Towards a more efficient product

- Very thin material and efficient coating results in similar stainless properties and an electrically conductive surface
- Our process ensures ultra-thin, homogeneous coating

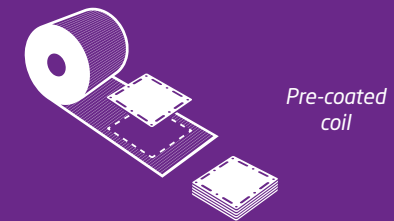
Your cost-effective solution for bipolar plates

- Continuous coating
- High-performance coating, a perfect match for PEM requirements
- Pre-coated coils, ready for plate shaping
- Stable properties after stamping and stack test

1 Set for mass production

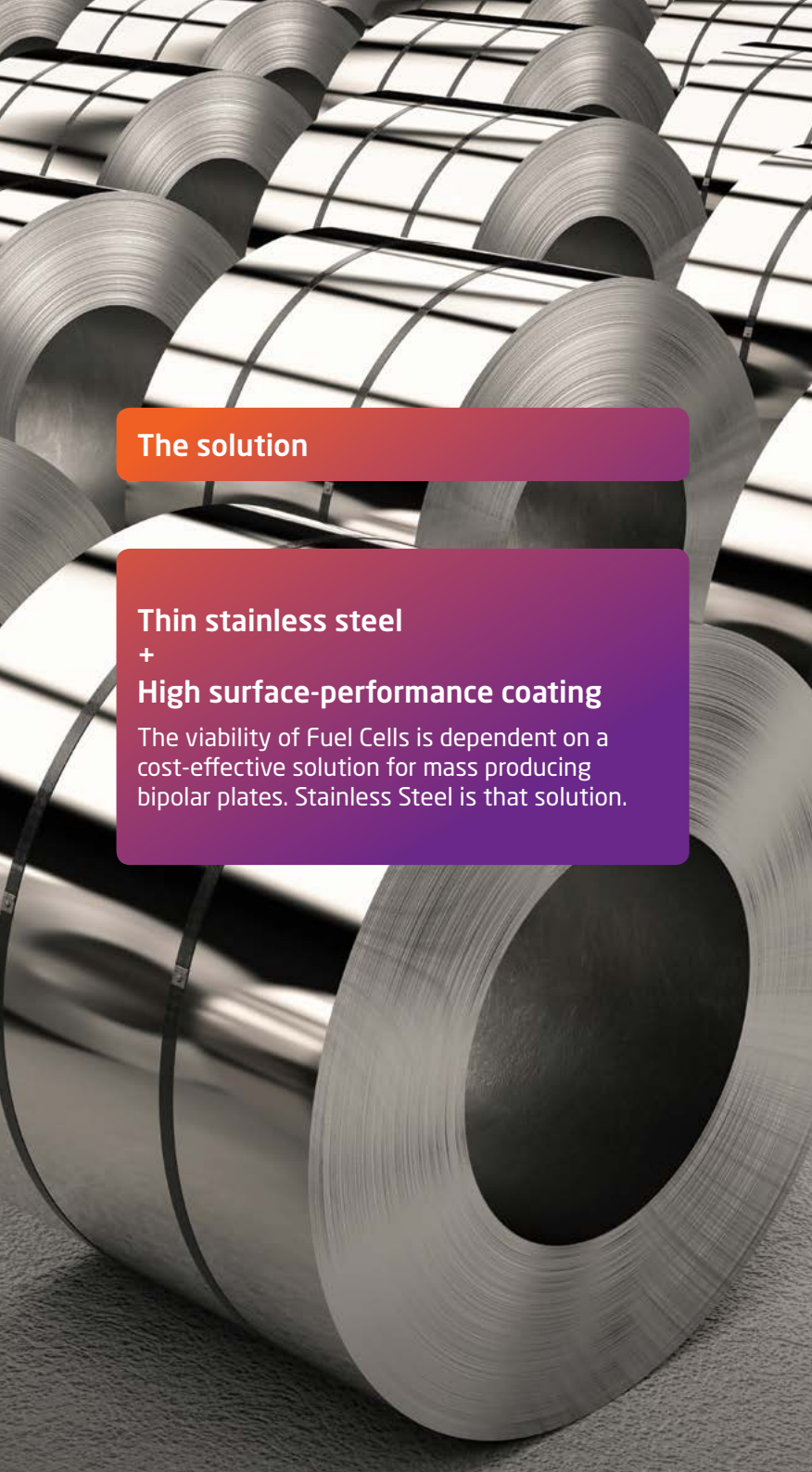


2 Less logistics



3 High performance and cost-effective





The solution

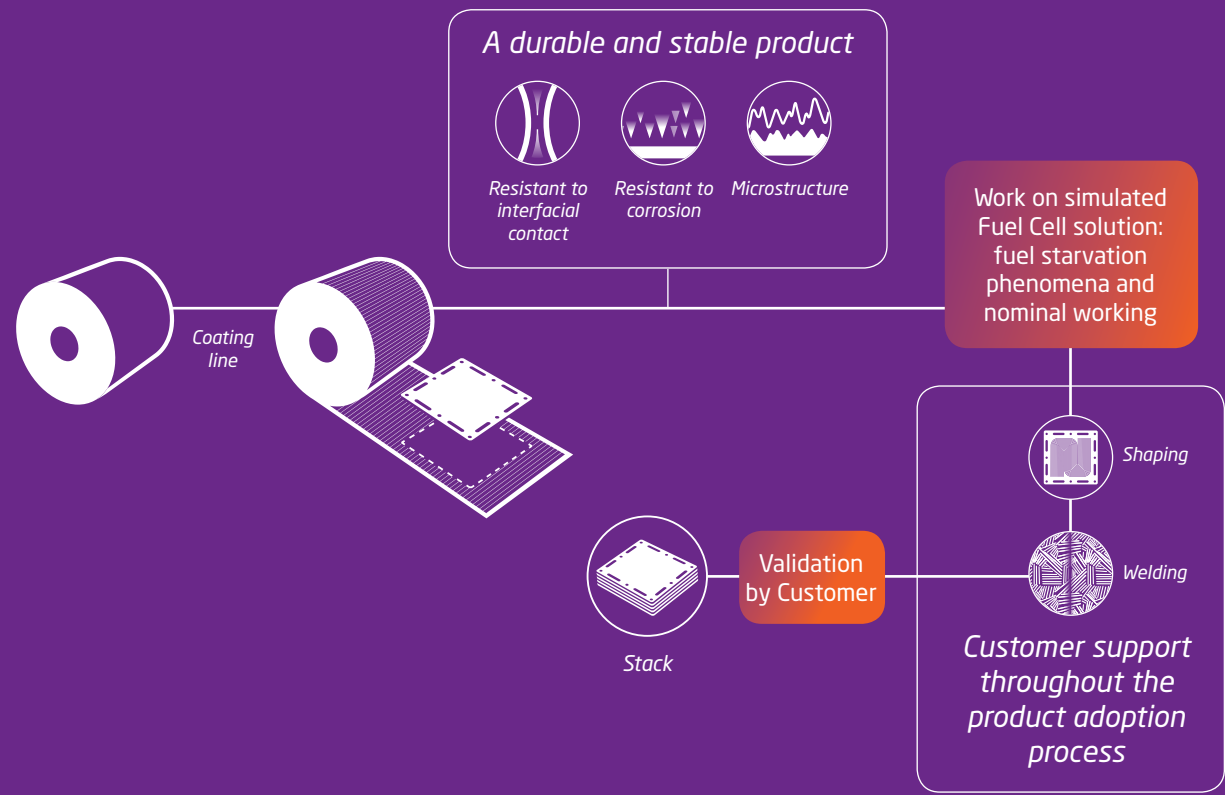
Thin stainless steel
+
High surface-performance coating

The viability of Fuel Cells is dependent on a cost-effective solution for mass producing bipolar plates. Stainless Steel is that solution.

Over 10 years experience in Fuel Cell R&D and industrialisation

Dedicated experts for:

- Interfacial contact resistance
- Microstructure (Adhesion)
- Electrochemical testing of Fuel Cells
- Welding
- Shaping





We are a world-class leader in Stainless and Specialty Steels

We are the leading Stainless and Specialty Steels company in South America and the second largest in Europe. We are also a leading manufacturer of high value added specialty products, including electrical steels and nickel alloys. We are proud of being the manufacturer of products that last a lifetime, offering great strength and versatility to our industrial customers and to end users, from machinery to cutlery. Together with our values of Leadership, Ingenuity and Agility, we aim to reshape the future of our industry by creating projects that solve global challenges and serve as catalysts for change.

At the heart of our commitment to sustainability are two core elements. Firstly, our mission to provide reliable, recyclable, and adaptable stainless and alloy solutions that can help solve the problem of global poverty while sparing natural resources. And secondly, our identity as a socially responsible company, which means building honest, mutually beneficial relationships with all our stakeholders.



www.aperam.com

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\$4.3 billion
2016 sales
in 40 countries

1.92 mt
Shipments in 2016

6 Main plants
Belgium | Brazil | France

2
R&D Centres

14
Steel
Service Centres

20
Sales agencies

7
Transformation
facilities