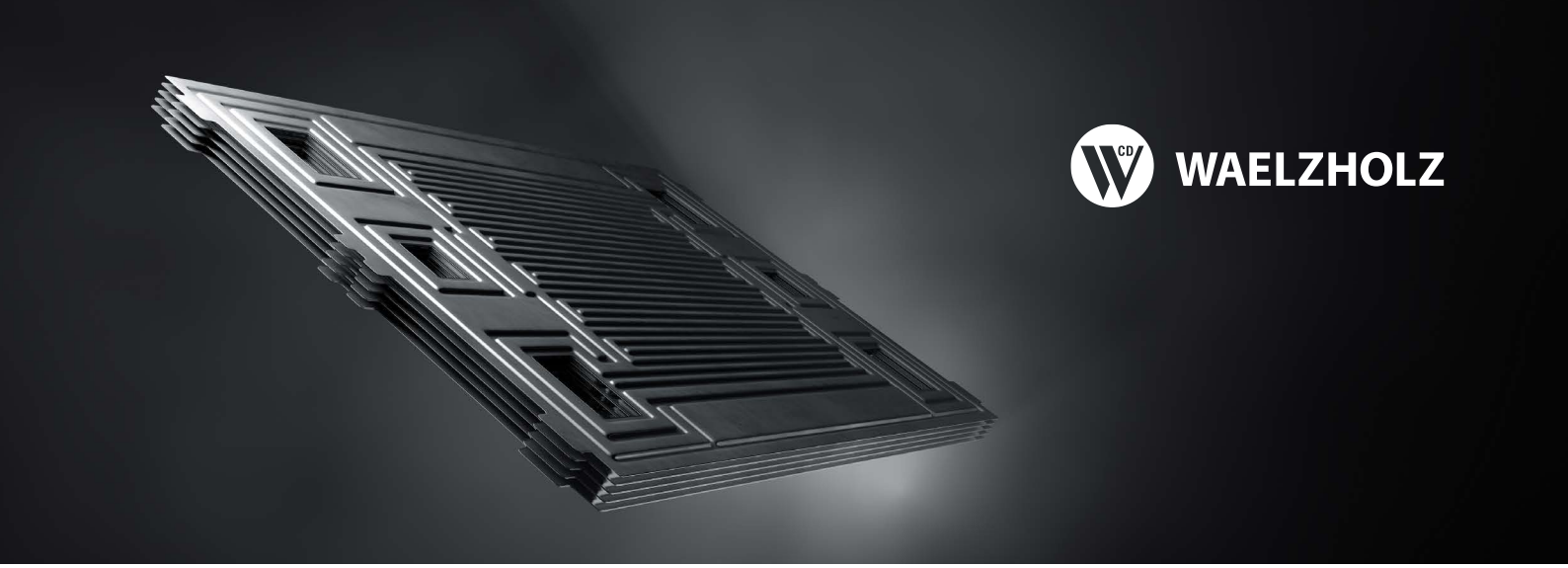

Stainless precision steel strip for bipolar plates in mobile fuel cell systems

Material properties

Grades:

- 1.4301
- 1.4303
- 1.4404

Overview of primary materials and forms of delivery:

Condition	Microstructure	Thickness range	Tolerance class according to DIN EN ISO 9445-1	Bendability**	Formability***
Standard	Austenite	0.05 mm – 0.2 mm	Precision	Bending angle α=180° Bending radius r=0	9.2
Waelzholz BPP steel grades*	Austenite		≤ Precision		10.2

* BPP steel grades = Bipolar plate steel

** Mandrel axis longitudinal and transverse to the rolling direction

*** Erichsen cupping value (IE) [mm], at strip thickness = 0.075 mm, based on DIN EN ISO 20482

Waelzholz's BPP steels offer a wide range of benefits for your application:

- Cost efficiency when using 1.4301 and 1.4303 by reducing alloying costs compared with 1.4404
- Our unique production routing improves the forming properties (Erichsen test) by 10% compared to the standard – making it possible to achieve the tightest bending radii and complex shapes with a high degree of isotropy
- Exceptional flatness for optimized flow-field forming over the entire plate surface as a basis for dimensional stability and durability in automotive applications
- Topology perfectly tailored to your coating
- Safeguard the functionality of the bipolar plate by protecting them from corrosion when using stainless precision steel strip, even if the coating is damaged
- Ideal workability and efficient processes thanks to highly consistent properties and a uniform thickness over the entire length of the steel strip
- Maximum precision through targeted limitation of the precision tolerance class

Contact:

Interested? We look forward to hearing from you and learning about your unique requirements.

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