

## Railway bridge structure

### Añorga (San Sebastián), Spain

Heavy corrosion had damaged a previous steel bridge structure beyond repair and made its replacement necessary. The local authorities extended the durability requirement to 130 years without major maintenance. Lean duplex stainless steel, which had already performed well in other types of bridges, struck the balance between technical and economic criteria. The structure is the first railway bridge fully designed in stainless steel.



### Details

<b>Environment:</b>	Urban
<b>Structural engineers:</b>	TECSA, Madrid, Spain
<b>Owner/developer:</b>	Eusko Trenbide Sarea, Bilbao, Spain
<b>Fabricator:</b>	Iturmo, Avilés, Spain
<b>Stainless steel grade:</b>	LDX 2101 (EN 1.4162)
<b>Product type:</b>	Quarto plate
<b>Dimension:</b>	12-23 mm
<b>Surface finish:</b>	1D, shot blasted
<b>Total quantity:</b>	130 t
<b>Producer or supplier:</b>	Outokumpu
<b>More information:</b>	<a href="http://outokumpu.com">outokumpu.com</a>

Lean duplex grade LDX 2101 (EN 1.4162) was selected for the first railway bridge whose entire metallic structure is in stainless steel.

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