



CERTIFICATE OF APPROVAL OF MANUFACTURERS OF MATERIALS

No. FAB017618XW

This is to certify that the manufacture of the product identified below is in compliance with the applicable requirements of the RINA Rules for the Approval of Manufacturers of Materials.

<i>Description</i>	Austenitic and austenitic-ferritic (duplex) stainless steel plates
<i>Type</i>	Grades S32101, S32304, S32205, 304L, 304LN, 316L, 316LN and 321
<i>Applicant</i>	OUTOKUMPU STAINLESS AB SE-69381 Degerfors SWEDEN
<i>Manufacturer</i>	OUTOKUMPU STAINLESS AB
<i>Place of manufacture</i>	SE-69381 Degerfors SWEDEN
<i>Reference standards</i>	RINA Rules for the approval of manufacturers of materials

Issued in **STOCKHOLM** on **July 3, 2018**. This Certificate is valid until **August 14, 2023**

 **Artur Stankiewicz**
Marine Surveyor
RINA Sweden AB
15882



RINA Services S.p.A.
Artur Stankiewicz

This certificate consists of this page and 1 enclosure



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Grades S32101, S32304, S32205, 304L, 304LN, 316L, 316LN and 321

APPROVAL CONDITIONS

Steel grade	Reference standard	Delivery conditions
S32101	EN 10088-2, ASTM A240	Hot rolled solution annealed
S32304	EN 10088-2, ASTM A240	Hot rolled solution annealed
S32205 (Avesta 2205)	EN 10088-2, ASTM A240	Hot rolled solution annealed
304L	EN 10088-2, ASTM A240 RINA Rules Part D, Ch.2, Sec 1, Para 7	Hot rolled solution annealed
304LN	EN 10088-2, ASTM A240 RINA Rules Part D, Ch.2, Sec 1, Para 7	Hot rolled solution annealed
316L	EN 10088-2, ASTM A240 RINA Rules Part D, Ch.2, Sec 1, Para 7	Hot rolled solution annealed
316LN	EN 10088-2, ASTM A240 RINA Rules Part D, Ch.2, Sec 1, Para 7	Hot rolled solution annealed
321	EN 10088-2, ASTM A240 RINA Rules Part D, Ch.2, Sec 1, Para 7	Hot rolled solution annealed

Maximum plate thickness 50 mm

Steelmaking process carried out at Outokumpu Stainless Steel AB, Avesta, Sweden

Steel making: Electric Arc Furnace

Casting Process: Continuous Casting

Slab size: width 1550-2070 mm, thickness 140 and 200 mm

General conditions for the approval:

1. The approval is granted on condition that the RINA Rules for the Approval of Manufacturers of Materials are complied with in all respects.
2. RINA is to be notified of any change of materials, manufacturing process, quality control routines that may affect the validity of this certificate..

STOCKHOLM June 29, 2018