

Outokumpu Stainless Plate, Inc.



Certificate of Analysis and Tests

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\* RE-CERTIFICATION \*
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OUR ORDER 0274637 - 04

HEAT & PIECE 850604-2A 03/29/11

SOLD TO: C.F.F. SPECIALTY STEELS INC.
1840 BURLINGTON ST. E.

SHIP TO: CUSTOMER PICK UP
CONTACT NATALIE FAX 905-549-29
OR NHILDEBRANDT@CFSTAINLESS.C
ONTARIO CN 00000

ONTARIO L8H 3L4 00000

YOUR ORDER & DATE 12/27/10
ITEM DESCRIPTION HEAT & PIECE 850604 - 2A
WEIGHT 16210
FINISH 1
GRADE 316L / 316
DIMENSIONS 5.000 X 96.000 X 116.000 EXACT
UNS-S31603 / UNS-S31600

SPECIFICATIONS
\*\*\* MFG IN NEW CASTLE, IN, USA FROM SLABS IMPORTED FROM BRITAIN
ASTM A240-10B ASME SA240 10E ASTM A480-10 ASME SA480 10ED
NACE MRO175-2003/ISO 15156 NO GRIPPER MARKS
NO WELD REPAIRS
ASTM A262-02A PRACTICE A ASTM A262-02A PRACTICE E

PLATES & TEST PCS SOLUTION ANNEALED @ 1900 DEGREES FAHRENHEIT MINIMUM.
THEN WATER COOLED OR RAPIDLY COOLED BY AIR
FREE FROM MERCURY CONTAMINATION AT CURRENT DETECTION LIMITS
HOT ROLLED, ANNEALED & PICKLED (HRAP)

MECHANICAL & OTHER TESTS
HARDNESS RB 72
GRAIN SIZE 3
YIELD STRENGTH (PSI) 43327
TENSILE STRENGTH (PSI) 75000
INTERGRANULAR CORROSION OK
ELONGATION % IN 2" 55.2
REDUCTION OF AREA % 58.2

CHEMICAL COMPOSITION
CARBON (C) .016
MANGANESE (MN) 1.58
PHOSPHORUS (P) .030
SULFUR (S) .001
SILICON (SI) .30
CHROMIUM (CR) 16.31
NICKEL (NI) 10.08
COBALT (CO) .18
COPPER (CU) .41
MOLY (MO) 2.03
NITROGEN (N) .08
COLUMBIUM (CB) .008
TITANIUM (TI) .002
ALUMINUM (AL) .007
TIN (SN) .011
TANTALUM (TA) .001

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN
ACCORDANCE WITH THE LISTED SPECIFICATION(S) AND THAT THE RESULTS OF ALL
TESTS ARE ACCEPTABLE.

JAMES DOUBMAN, QUALITY ASSURANCE MANAGER

CERTIFICATE IN CONFORMANCE WITH EN10204-95 3.1.B/EN10204-2004 3.1

Signature of James Douberman

Outokumpu Stainless Plate, Inc.
P.O. Box 370
New Castle, Indiana 47362

Signature: AWS