



Certificate of Analysis and Tests

847481-1A

OUR ORDER 0268655 - 03 HEAT & PIECE 847481-1A 07/20/09

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

ONTARIO L8H 3L4 00000 TO BE ADVISED 00000

----- YOUR ORDER & DATE -----
 C69371 6/05/09
 ----- ITEM DESCRIPTION -----
 HEAT & PIECE 847481 - 1A
 WEIGHT 14947
 FINISH 1
 GRADE 304L / 304 UNS-S30403 / UNS-S30400
 DIMENSIONS 4.000 X 78.000 X 164.000 EXACT

----- SPECIFICATIONS -----
 *** MFG IN NEW CASTLE, IN, USA FROM SLABS IMPORTED FROM BRITAIN
 ASTMA240-08ASMESA240 07E08AA ASTMA480-08ASMESA480 07E08AA
 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 78
 GRAIN SIZE 3
 YIELD STRENGTH (PSI) 35002
 TENSILE STRENGTH (PSI) 81710
 INTERGRANULAR CORROSION OK
 ELONGATION % IN 2" 55.2
 REDUCTION OF AREA % 71.0

----- CHEMICAL COMPOSITION -----
 CARBON (C) .030
 MANGANESE (MN) 1.76
 PHOSPHORUS (P) .038
 SULFUR (S) .001
 SILICON (SI) .37
 CHROMIUM (CR) 18.20
 NICKEL (NI) 8.61
 COBALT (CO) .15
 COPPER (CU) .56
 MOLY (MO) .34
 NITROGEN (N) .07
 COLUMBIUM (CB) .008
 TITANIUM (TI) .003
 ALUMINUM (AL) .005
 TIN (SN) .015
 TANTALUM (TA) .004



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

ISO 9001-2000

JAMES DOUBMAN, QUALITY ASSURANCE MANAGER

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

James Douberman

Outokumpu Stainless Plate, Inc.
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 New Castle, Indiana 47362

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