

842664-2A

AA: B020

OUTOKUMPU

Outokumpu Stainless Plate, Inc.

Certificate of Analysis and Tests

OUR ORDER 0259110 - 21

HEAT & PIECE 842664-2A 10/23/07

SOLD TO: SAMUEL SON & CO., INC.
5022 ASHLEY COURT
HOUSTON TX 77041

SHIP TO: SAMUEL SPECIALTY METALS
713-896-1200
5022 ASHLEY COURT
HOUSTON TX 77041

YOUR ORDER & DATE

6726179 4/24/07

TAG# 5310086

HEAT & PIECE 842664 - 2A
WEIGHT 23476
FINISH 1
GRADE 304
DIMENSIONS 5.000 X 84.000 X 192.000 EXACT

ITEM DESCRIPTION

SPECIFICATIONS

*** MFG IN NEW CASTLE, IN, USA
ASME SA480 07 EDITION
QQ-S-766D AMENDIII EX.P4.5.2
NACE MRO175-2003
ASTM A480/A480M-06B
AMS 5513H EXCEPT LINE MARK
NO GRIPPER MARKS
ASTM A262-02A PRACTICE A

ASTM A240-07
ASTM A167-99(2004)
ASME SA480 07 EDITION
NACE MRO175-2003 WITH EXCEPTIONS
MFG IN NEW CASTLE, IN, USA
NO WELD REPAIRS
ASTM A262-02A PRACTICE E

PLATES & TEST PCS SOLUTION ANNEALED @ 1950 DEGREES FAHRENHEIT MINIMUM,
THEN WATER COOLED OR RAPIDLY COOLED BY AIR
FREE FROM MERCURY CONTAMINATION AT CURRENT DETECTION LIMITS
HOT ROLLED, ANNEALED & PICKLED (HRAP)
FREE OF RADIOACTIVE CONTAMINATION BEYOND PERMISSABLE LEVELS

MECHANICAL & OTHER TESTS

HARDNESS RB 87
GRAIN SIZE 3
YIELD STRENGTH (PSI) 44476
TENSILE STRENGTH (PSI) 87600
INTERGRANULAR CORROSION OK
ELONGATION % IN 2" 47.6
REDUCTION OF AREA % 52.1

CHEMICAL COMPOSITION

CARBON (C) .05
MANGANESE (MN) 1.02
PHOSPHORUS (P) .032
SULFUR (S) .001
SILICON (SI) .38
CHROMIUM (CR) 18.30
NICKEL (NI) 8.11
COBALT (CO) .16
COPPER (CU) .47
MOLY (MO) .38
NITROGEN (N) .07
COLUMBIUM (CB) .008
TITANIUM (TI) .002
ALUMINUM (AL) .005
TIN (SN) .017
TANTALUM (TA) .002

APPROVED Samuel Son & Co.
DATE _____
CUSTOMER _____
JOB # _____
PART # _____

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