

842723-2A

Outokumpu Stainless Plate, Inc.

**OJTO  
KUMPU**

# Certificate of Analysis and Tests

OUR ORDER 0260830 - 03

HEAT & PIECE 842723-2A 11/26/07

Stainless Plate Products, Inc.  
1235 Manor Road  
Coatesville PA 19320

Stainless Plate Products, Inc.  
1235 Manor Road  
Coatesville PA 19320

----- YOUR ORDER & DATE -----

S3979-1 9/11/07

----- ITEM DESCRIPTION -----

HEAT & PIECE 842723 - 2A  
WEIGHT 16978  
FINISH 1  
GRADE 316L / 316  
DIMENSIONS 5.000 X 72.000 X 162.000 EXACT  
UNS-S31603 / UNS-S31600

----- SPECIFICATIONS -----

\*\*\* MEG IN NEW CASTLE, IN; USA  
AMS 5507F EXCEPT LINE MARK  
ASTM A240-07 ASME SA240 07ED  
ASTM A167-99(2004)  
ASTM A666-03 ANN COND ONLY  
MELTED ELECTRIC ARC METHOD  
ASTM A262-02A PRACTICE A  
NO WELD REPAIRS

FROM SLABS IMPORTED FROM BRITAIN  
AMS 5524K EXCEPT LINE MARK  
ASTM A480-06B ASME SA480 07E  
ASTM A262-02A PRACTICE E  
ASTM A312-02 CHEM&MECH ONLY  
REFINED A.O. PROCESS  
NO GRINDER MARKS

PLATES & TEST PCS SOLUTION ANNEALED IN 90% NITRIC ACID AT 160 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 71  
GRAIN SIZE 5  
YIELD STRENGTH (PSI) 37432  
TENSILE STRENGTH (PSI) 81210  
INTERGRANULAR CORROSION OK  
ELONGATION % IN 2" 53.6  
REDUCTION OF AREA % 62.4

ISO 9001:2000  
QMS Cert #  
003861

----- CHEMICAL COMPOSITION -----

CARBON	(C)	.015
MANGANESE	(MN)	1.71
PHOSPHORUS	(P)	.032
SULFUR	(S)	.001
SILICON	(SI)	.42
CHROMIUM	(CR)	16.26
NICKEL	(NI)	10.07
COBALT	(CO)	.18
COPPER	(CU)	.40
MOLY	(MO)	2.02
NITROGEN	(N)	.04
COLUMBIUM	(CB)	.009
TITANIUM	(TI)	.003
ALUMENUM	(AL)	.007
TIN	(SN)	.009
TANTALUM	(TA)	.006

1000712

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

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