



New Castle Stainless Plate, LLC

Certificate of Analysis and Tests

Page: 1

OUR ORDER 0296636 - 06

HEAT & PIECE 864451-1A 05/09/18

SOLD TO: SANDMEYER STEEL COMPANY
ONE SANDMEYER LANE

SHIP TO: SANDMEYER STEEL COMPANY
ONE SANDMEYER LANE

PHILADELPHIA

PA 19116

PHILADELPHIA

PA 19116

----- YOUR ORDER & DATE -----
63565 3/12/18

----- ITEM DESCRIPTION -----
HEAT & PIECE 864451 - 1A
WEIGHT 12336
FINISH 1
GRADE 410 UNS-S41000
DIMENSIONS 2.250 X 78.750 X 238.000 EXACT

----- SPECIFICATIONS -----
*** MFG IN NEW CASTLE, IN, USA FROM SLABS IMPORTED FROM BRITAIN
ASTM A240-17 ASME SA240-15E ASTM A480-17 ASMESA480 15ED
AMS 5504M EXCEPT LINE MARK 2014/68/EU ANNEX 1 PARA 4.3
2014/68/EU PED #228/2004/MUC LIST HEAT/PCE/SIZE ON INVCE
REQUIRES PRODUCT ANALYSIS NON STANDARD PROPERTIES REQD
ASTM E112-13 NO GRIPPER MARKS
NO WELD REPAIRS

HOT ROLLED, ANNEALED, & DESCALED
FREE FROM MERCURY CONTAMINATION AT CURRENT DETECTION LIMITS
ANNEALED AT 1300 DEGREES FAHRENHEIT MINIMUM.

----- MECHANICAL & OTHER TESTS -----
HARDNESS HRBW 71
GRAIN SIZE 7
YIELD STRENGTH (PSI) 49778
TENSILE STRENGTH (PSI) 80523
INTERGRANULAR CORROSION OK
ELONGATION % IN 2" 36.7
REDUCTION OF AREA % 58.3
HARDNESS RESPONSE RC 38
THE RECORDING OF FALSE, FICTITIOUS OR FRADULENT STATEMENTS MAY BE
PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE

----- CHEMICAL COMPOSITION ----- PRODUCT ANALYSIS -----
CARBON (C) .11 (C) .13
MANGANESE (MN) .59 (MN) .58
PHOSPHORUS (P) .023 (P) .014
SULFUR (S) .001 (S) .012
SILICON (SI) .44 (SI) .48
CHROMIUM (CR) 12.41 (CR) 12.67
NICKEL (NI) .31 (NI) .27
COBALT (CO) .02 (CO) .01
COPPER (CU) .04 (CU) .04
MOLY (MO) .02 (MO) .02
NITROGEN (N) .06 (N) .06
TITANIUM (TI) .001 (TI)
ALUMINUM (AL) .003 (AL) .009
TIN (SN) .003 (SN) .001
TANTALUM (TA) .003 (TA)

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

JAMES DOUBMAN, QUALITY ASSURANCE MANAGER

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

New Castle Stainless Plate, LLC
549 West State Road 38
New Castle, Indiana 47362