

HIGH TEMP METALS SALES@HIGHTEMPMETALS.COM 12500 FOOTHILL BLVD. SYLMAR CA 91342-6038

PHONE: (818)362-5357

# CERTIFICATE OF COMPLIANCE

We certify that this material conforms to the applicable specifications as shown on this purchase order.

| Customer        | D&M METAL AND INDUSTRIAL SALES  |
|-----------------|---------------------------------|
| Customer PO #   | D20-386                         |
| HTM Work Order# | 00136207                        |
| Quantity        | 5.000 EACH                      |
| Weight          | LBS                             |
| Material Detail | 200/201                         |
|                 | NO. OF PCS: 5, TOT WGHT: 28 LBS |
|                 | ASTM-B-162                      |
|                 | .510/.560 X 6.25"OD             |
|                 | WATERJET +.187-0                |
|                 | HOT ROLLED, ANNEALED, DESCALED  |
|                 | AIM ESR                         |
|                 | HEAT: NN06V2AG141               |
|                 | BUYR: Jordan Lawing             |
|                 |                                 |
|                 |                                 |

John Vulchev

QC Certifications Clerk

12/07/2020

Date

12060-1

## **HUNTINGTON ALLOYS CORPORATION**

3200 Riverside Drive, Huntington, West Virginia 25705 1771 USA Tel: +1.304.526.5100 Toll Free in the USA: 1.800.334.4626 Fax: +1.304.526.5643 info@specialmetals.com

Certificate No.

91408-00

02-FEB-19

## CERTIFIED MATERIALS TEST REPORT

Page No.

1 / 3

Note: The recording of false, fictitious or fraudulent statements or entries on this document may be punishable as a felony under federal statute,

This report relates only to the item(s) tested and may not be reproduced except in full.

Customer HIGH TEMP METALS 12500 FOOTHILL BLVD SYLMAR CA 91342-6038

Ship To HIGH TEMP METALS 12500 FOOTHILL BLVD SYLMAR CA 91342-6038

Sales Order Number

Purchase Order Number

Mark Order Number

Material Heat / Lot Identity

100071878 / 1.1

10493

12060

NN06V2AG141

UNS Number NO2200/NO2201

Material Description

NICKEL 200/201, AIR INDUCTION MELTED-ELECTROSLAG REMELTED, , HOT ROLLED PLATE, DESCALED, ANNEALED, .5200, 48.0000, 200.0000, IN
1 PC PLATE# P31630 1640 LBS

#### Specifications

ASTM B 162-99 (2014)/ ASME SB-162 2017 EDITION/ ASTM B 160-05 (2014) CHEM & MECHANICAL PROPERTIES ONLY/ ASME SB-160 2017 EDITION CHEM & MECHANICAL PROPERTIES ONLY/ SAE AMS 5553H CHEM ONLY/ GE S-400 (6-03-16)/ GE S-1000 (3-2-18)/ WERKSTOFF 2.4060/ WERKSTOFF 2.4061/ MARK

|             |                   | ANALYSIS |      |            |      |      |      |      |  |
|-------------|-------------------|----------|------|------------|------|------|------|------|--|
| H<br>Method | C %<br>.02<br>C/S | MN %     | FE % | S % .00001 | SI % | CU % | NI % | CO % |  |
|             | 0/5               | ICP      | ICP  | C/S        | ICP  | ICP  | ICP  | ICP  |  |

ANALYSIS METHOD LEGEND

C/S - Carbon/Sulfur

ICP - Inductively Coupled Plasma

#### TENSILE TEST

ROOM TEMP TENSILE - LONG | LAB | MECHANICAL

PIECE TEST TEMPER TENSILE KSI .2% YIELD KSI EFF GA LNGTH IN RED OF AREA% ELONG% ORIENT

P31630 AN 58.9 26.4 86.2 56.1 LONG •

ROOM TEMP TENSILE - TRANS|LAB|MECHANICAL

INCOLOY®, INCONEL®, MONEL®, NILO®, NIMONIC®, NI-SPAN-C®, UDIMET®, DURANICKEL®, 601GC®, 625LCF®, 718SPF®, 740H®, 800HT®, 945®, and 945X® are trademarks of the Special Metals group of companies

EF595

17.060-2



## **HUNTINGTON ALLOYS CORPORATION**

3200 Riverside Drive, Huntington, West Virginia 25705 1771 USA
Tel: +1.304.525.5100 Toll Free in the USA: 1.800.334.4626
Fax: +1.304.526.5643 info@specialmetals.com

Certificate No.

91408-00

Dated

02-FEB-19

## CERTIFIED MATERIALS TEST REPORT

Page No.

2 / 3

| PIECE             | TEST TEMPER     | HARDNESS | HARD | TYPE   | TENSILE   | KSI  | .2% YIF      | ELD KSI | EFF GA LNGTH                      | IN | RED OF AREAS |
|-------------------|-----------------|----------|------|--------|-----------|------|--------------|---------|-----------------------------------|----|--------------|
| P31630            | AN              | 59.2     | HRB  |        | 58.2      |      | 24.6         |         | 1.4                               |    | 88.3         |
| ELONG% OF         | RIENT           |          |      |        | (*)       |      | ¥            |         |                                   |    | 00.5         |
| 50.7 TF           | RANS            |          |      |        |           |      |              |         |                                   |    |              |
| TREATMENT FURNACE | 7710100         |          |      |        | HEAT TREA |      |              |         |                                   |    |              |
| TOMINENT          | EATMENT FURNACE | TEM      | PlF  | F TEMP | 1 HOLD    | HOLD | O 1 UNITS CH | S CHAI  | HANGE 1                           |    |              |
| NNEAL             | SPF             | 145      | 0 _  | 30     |           | MN   |              | AC      | adding in the Land representative |    |              |

NC WELD REPAIR HAS BEEN PERFORMED ON THIS MATERIAL.

METRIC DIMS: 13.2MM X 1219MM X 5080MM

LOCATION LEGEND: B = BACK C = CENTER F = FRONT H = HEAD M = MIDDLE T = TOE

TEST VERDICT LEGEND: P = PASS W = WAIVER

TEST TEMPER LEGEND

AN - Annealed

ALL TEST RESULTS ARE REPORTED TO AT LEAST THE REQUIRED PRECISION BY THE ROUNDING METROD OF ASTM E 29 UNLESS OTHERWISE REQUIRED BY PURCHASE ORDER OR SPECIFICATION.

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA. DFARS PART 252,225,7014 AND 252,225,7008 COMPLIANT. THIS CERTIFICATION AFFIRMS THAT THE CONTENTS OF THIS REPORT ARE CORRECT AND ACCURATE AND THAT ALL TEST RESULTS AND OPERATIONS PERFORMED BY SPECIAL METALS CORPORATION, INC. OR ITS SUBCONTRACTORS ARE IN COMPLIANCE WITH THE MATERIAL

QUALITY SYSTEM MEETS REQUIREMENTS OF DIRECTIVE 2014/68/EU (PRESSURE EQUIPMENT DIRECTIVE), ANNEX 1, CHAPTER 4.3 PER ABS GROUP LTD CERTIFICATE 41734 (EXPIRES JANUARY 28, 2021)

HUNTINGTON ALLOYS CORPORATION IS AN ACCREDITED INDEPENDENT NADCAP MATERIALS TESTING LABORATORY VIA CERTIFICATE NUMBER 3200174115 ( EXPIRES 31 OCTOBER 2019) FOR ALL TESTING SPECIFIED IN THE SCOPE OF ACCREDITATION.

MATERIAL PRODUCED UNDER QA SYSTEM DOCUMENTED IN HUNTINGTON ALLOYS CORP QA MANUAL REV. 53, DATED 01/13/2017 QA MANUAL NOT TO IMPLY COMPLIANCE TO ASME SECTION III. COMPLIANCE MUST BE OTHERWISE STATED ON CMTR. QUALITY SYSTEM CERTIFICATION: ISO 9001:2008 (ABS-QE CERT. 30125, EXPIRES 7/31/2019); EN 10 204/DIN 50049 (TYPE 3.1)

INCOLOY®, INCONEL®, MONEL®, NILO®, NIMONIC®, NI-SPAN-C®, UDIMET®, DURANICKEL®, 601GC®, 625LCF®, 718SPF®, 740H®, 800HT®, 945®, and 945X® are trademarks of the Special Metals group of companies 

12060-3



#### HUNTINGTON ALLOYS CORPORATION

3200 Riverside Drive, Huntington, West Virginia 25705 1771 USA
Tel: +1.304.526.5100 Toll Free in the USA: 1.800.334.4626
Fax: +1.304.526.5643 info@specialmetals.com

Certificate No.

91408-00

02-FEB-19

## CERTIFIED MATERIALS TEST REPORT

Page No.

3 / 3

QUALITY SYSTEM CERTIFICATION: AS9100D:2016, EN9100D:2016, JISQ9100:2016 and ISO9001:2015 (ABS-QE CERT 56476 EXPIRES 1/28/2021)

LABORATORY IS ACCREDITED TO ISO/IEC 17025:2005 FOR MECHANICAL TESTING AND CHEMICAL ANALYSIS.

VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.

MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA SOURCE, AND LOW MELTING ELEMENTS.

CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN, OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES. ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY.""

OTHORIZED QUALITY CERTIFICATION REPRESENTATIVES:

W.E. BOLEN, KA. SMITH, V.A. POWELL, B.K. VASS, ROBERT D. DILLE, G.J. BURKHEAD

**End Of Certificate** 

This is to certify that all required samplings inspections and tests have been performed in accordance with the order and specification requirements. The test report represents the actual attributes of the material described and the values shown are correct and true. The order and inspection requirements. We hereby certify that the figures given are in accordance with the specified contract requirements.

REV. 8/08

For and on behalf of HUNTINGTON ALLOYS CORPORATION

OY®, INCONEL®, MONEL®, NILO®, NIMONIC®, NI-SPAN-C®, UDIMET®, DURANICKEL®, 601GC®, 625LCF®, 718SPF®, 740H®, 800HT®, 945®, and 945X® are trademarks of the Special Metals group of companies

EF595