001A

9 48./.125/120.

Flat Rolled Products

83/8

CERTIFICATE OF TEST

895325

*** ENGLISH *** CUST. ORD. NO. & DATE CUST. CODE FINISHING LOCATION SHIPPER NO. PRODUCT CODE MILL ORDER NUMBER DATE SHIPPED 542905 13010105060000 31-057-041 08/21/17 05/12/17A464105 LOUISVILLE. OH 9417 FORMS DISTRIBUTION REPEAT DO PRI-RATE ORITY **GOV'T CONTRACT** MAT'L. SHIPPING LOCATION INVOICE **ORDER** SHIP 1 244093 09560-0 36 1340 INDIANAPOLIS IN 399 SOLD TO PRIME SEC. SHIP TO DSO DSO 10

GRADE AND SPECIFICATIONS

"ATI 400" NICKEL ALLOY SHEET C R CUT LENGTHS ANNEALED #3/#4 POLISH 3 EDGE (PWA 300 REV BP) (QQ-N-281D & AM 2 CLASS A FORM 4) (AMS 4544H) (ASTM-B-127-05 R2014) (ASME-SB-127 ED 2015) (UNS N04400) (NACE MR0175/ISO 15156-3:2015) (F-14, F-17, F-22, F-23, F-MASTER) (DIN EN 10204:2005 3.1 CERTIFICATE) (S-1000 01/19/2017) (S-400 DTD 06/03/2016) (HTM-7420 PO CLAUSES REV 2) (WNR 2.4360) (12/28/16 EXCEPTIONS HTM-7420) (ROLLS ROYCE SABRE) (CONTROLLED TO PWA LCS REQUIRMENTS) (NACE MR0103/ISO 17495-1:2016)

ITEM PCS DIMENSIONS W/G/L

HEAT # COIL # TEST # GROSS TARE NET THEO TAG #/ CD SKID #

G216684

AAB89557-D

525445

9 48./.125/120.		525445	AAB895	57-E	G21668	4 24	55 345	2110	8	95331	
9 48./.125/120.		525445	AAB895	57-F	G21668	4 24	55 345	2110	8	95334	
9 48./.125/120.		525445	AAB8955	57-G	G21668	4 24	55 345	2110	8	95336	
6 48./.125/120.		525445	AAB895	57-H	G21668	4 17	60 355	1405	8	95337	
C CUST IDENTITY 400.125X48X120											
5 SKIDS						1158	0 1735	984	5		
TYPE HEAT/TEST (WT %)	CMN	IP	S	SI	NI	AL	CU	TI	CO	SN	PB
HEAT 525445	.12 1.46	.005	.0001	.11	63.67	.20	32.1	.01	.02	.001	.001
TEST LOCATION	LO LO	LO	LO	LO	LO	LO	LO	LO	LO	TC	TC
	FEZN	[- -									
HEAT 525445	1.73 .001	•/									
TEST LOCATION	LO TC										
MET III MORITOR TILL . ACR											

MELT METHOD: EF + AOD

YIELD TENSILE % ELONG ASTM GRAIN ITEM TEST NO PSI * PSI IN 2" % R/A HARDNESS SIZE BEND HARDENABILITY 44. # 76.HRBW 001A G216684 T 39200. 84400. NR T PASS NR NRNRT 39700. 84200. 42. # 77. HRBW TC TC TC TC TC TEST LOCATION 08/21/17 15:34:46 PAGE 01 - CONTINUED ON PAGE 02

CONSIGNEE. Please Note. This consignment was turned over to carrier in first class condition, being correctly loaded, at which time our responsibility for loss or damage in shipment ceased. For your protection please examine shipment as it arrives. If any shortage or damage is discovered, have a full description made by transportation agent on waybill before signing.

WARNING

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Noreen Deferrari - Sr. Manager Quality, Corporate Quality Assurance

2455

345

2110

Flat Rolled Products

CERTIFICATE OF TEST

AL 6168-8 417

*** ENGLISH *** PRODUCT CODE MILL ORDER NUMBER DATE SHIPPED 13010105060000 31-057-041 08/21/17 INVOICE MAT'L. SHIPPING LOCATION 1340 INDIANAPOLIS 244093

SHIPPER NO. CUST, ORD, NO. & DATE CUST. CODE FINISHING LOCATION 9417 05/12/17A464105 LOUISVILLE. OH 542905 FORMS DISTRIBUTION REPEAT DO PRI-**GOV'T CONTRACT** ORDER 09560-0 36 PRIME SEC. SOLD TO DSO DSO 10

GRADE

CARRIER - SUNTECK TRANSPORTATION

SHIP TO

"ATI 400" NICKEL ALLOY SHEET C R CUT LENGTHS ANNEALED #3/#4 POLISH 3 EDGE

* Y.S. BY 0.2% OFFSET METHOD

P&W E-25

ITEM TEST NO TRAN BEND

001A G216684

TEST LOCATION

TC

ELONG AT FRACTURE

NR = DATA NOT REQUIRED GRADE VERIFICATION WAS CARRIED OUT SPECTROSCOPICALLY

THESE COMMODITIES OR TECHNOLOGY, WHEN EXPORTED FROM THE UNITED STATES, ARE IN ACCORDANCE WITH THE USA EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW IS PROHIBITED. U.S. LAW ALSO PROHIBITS DISPOSITION OF THESE COMMODITIES/TECHNICAL DATA TO ANY END-USER OR FOR ANY END-USE RELATED TO THE DESIGN. DEVELOPMENT, PRODUCTION, STOCKPILING, OR USE OF CHEMICAL, BIOLOGICAL, OR NUCLEAR WEAPONS, OR MISSILES. WITHOUT THE PROPER APPROVAL OF THE UNITED STATES GOVERNMENT.

ATI-FRP DEFINES THE GRAIN ORIENTATION NOMENCLATURE AS LONGITUDINAL (L) IS THE LENGTH, LONG TRANSVERSE (LT) IS THE WIDTH, AND SHORT TRANSVERSE (ST) IS THE THICKNESS OR GAUGE.

ATI FLAT ROLLED PRODUCTS HAS COMPLIED WITH ALL PRODUCER REQUIREMENTS OF AS6279.

ATI FLAT ROLLED PRODUCTS DOES NOT USE MERCURY IN THE TESTING OR PRODUCTION OF ITS PRODUCTS.

MATERIAL IS OF USA MELT AND MANUFACTURE.

PAGE 02 - CONTINUED ON PAGE 03

08/21/17 15:34:46

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Flat Rolled Products

CERTIFICATE OF TEST

AL 6168-8 417

*** ENGLISH *** PRODUCT CODE MILL ORDER NUMBER DATE SHIPPED 13010105060000 | 31-057-041 08/21/17 SHIPPING LOCATION INVOICE 1340 INDIANAPOLIS IN 244093 399

CUST, ORD, NO. & DATE CUST. CODE FINISHING LOCATION SHIPPER NO. 9417 05/12/17A464105 LOUISVILLE, OH 542905 FORMS DISTRIBUTION REPEAT DO PRI-GOV'T CONTRACT ORDER l09560-0 l361 SOLD TO PRIME SEC. DSO DSO 10

GRADE CARRIER - SUNTECK TRANSPORTATION "ATI 400" NICKEL ALLOY SHEET C R CUT LENGTHS ANNEALED #3/#4 POLISH 3 EDGE

NO WELDS/WELD REPAIRS PERFORMED.

ELEMENTS SUCH AS SULFUR, PHOSPHOROUS, BORON, AND RADIOACTIVE ELEMENTS MAY BE PRESENT AS RESIDUALS IN ANY GIVEN PRODUCT DUE TO THEIR COMMON OCCURENCE IN NATURE, BUT ARE NOT ADDED AS ALLOYING CONSTITUENTS UNLESS REQUIRED BY SPECIFICATION. MATERIAL IS PRODUCED WITHOUT CONTACT WITH LOW MELTING POINT CONTAMINANTS SUCH AS LEAD, ZINC, COPPER, AND TIN. CARBON STEEL CONTAMINATION IS MINIMIZED WHERE PRACTICABLE.

EN 10204:2005 - ATI FLAT ROLLED PRODUCTS IS APPROVED AS A MANUFACTURER ACCORDING TO THE PRESSURE EQUIPMENT DIRECTIVE PED 2014/68/EU.

MATERIAL IS COMPLIANT WITH THE EUROPEAN UNION DIRECTIVE 2011/65/EU - RESTRICTION OF HAZARDOUS SUBSTANCES (ROHS2).

ATI FLAT ROLLED PRODUCTS HAS AN ACTIVE RADIOACTIVE TESTING PROGRAM WHICH MONITORS INCOMING RAW MATERIALS AS WELL AS MELT SAMPLES FOR EVIDENCE OF RADIOACTIVITY. RAW MATERIAL OR MELT SHOWING RADIATION LEVELS ABOVE NORMAL BACKGROUND ARE NOT PERMITTED TO BE USED.

THIS CERTIFIED MATERIAL TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL. FEDERAL LAW PROHIBITS THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE AND MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL LAW. ATI FRP HOLDS SEVERAL QUALITY CERTIFICATIONS THAT INCLUDE ISO-9001, AS9100, NADCAP, AND ISO/IEC 17025. MATERIAL WAS MANUFACTURED IN ACCORDANCE WITH THE ATI FRP QUALITY MANUAL REVISION 26 DATED 06/14/2017.

ATI FLAT ROLLED PRODUCTS WORKS TO THE ROLLS ROYCE SABRE QUALITY MANAGEMENT SYSTEM REQUIREMENTS.

QUALITY SYSTEM CERTIFIED ACCORDING TO PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU, ANNEX I, 4.3 BY TUV SUD, INDUSTRIE SERVICE GMBH, (NOTIFIED BODY 0036).

PAGE 03 - CONTINUED ON PAGE 04

08/21/17 15:34:46

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Noreen Deferrari -Sr. Manager Quality, Corporate Quality Assurance

MAT'L.

SHIP TO

Flat Rolled Produc

CERTIFICATE OF TEST

AL 6168-8 417

*** ENGLISH ***

PRODUCT CODE | MILL ORDER NUMBER | DATE SHIPPED |

13010105060000 | 31-057-041 | 08/21/17 |

MATL. | SHIPPING LOCATION | INVOICE |

1340 | INDIANAPOLIS | IN | 244093 | 399

Flat Rolled Products SHIPPER NO. CUST, ORD, NO. & DATE CUST. CODE FINISHING LOCATION 9417 05/12/17A464105 LOUISVILLE, 542905 OH FORMS DISTRIBUTION REPEAT DO PRI-RATE ORITY **GOV'T CONTRACT** ORDER 109560-0 1361 SOLD TO PRIME SEC. DSO DSO 10

GRADE CARRIER - SUNTECK TRANSPORTATION "ATI 400" NICKEL ALLOY SHEET C R CUT LENGTHS ANNEALED #3/#4 POLISH 3 EDGE

ATI FLAT ROLLED PRODUCTS PERFORMS CHEMICAL ANALYSIS BY THE FOLLOWING TECHNIQUES FOR TESTING LOCATIONS TC, BN, MI, & LO:
C, S BY COMBUSTION/INFRARED
N, O, H BY INERT FUSION/THERMAL CONDUCTIVITY
MN, P, SI, CR, NI, MO, CU, CB, CO, V BY WDXRF
B BY OES
AL AND TI (>=0.10%) BY WDXRF, OTHERWISE BY OES
PB, BI, AG BY GFAA

MATERIAL TESTED AT ATI FLAT ROLLED PRODUCTS GEAE S400 APPROVED FACILITIES (T1225 & T9317): NATRONA HEIGHTS, PA; BRACKENRIDGE, PA AND NEW BEDFORD, MA.

ATI FLAT ROLLED PRODUCTS HOLDS SEVERAL QUALITY AND LABORATORY CERTIFCATIONS THAT INCLUDE ISO-9001, AS9100, AD 2000-MERKBLATT WO, EU PRESSURE EQUIPMENT DIRECTIVE 2014/68/EU, NADCAP, ISO/EIC 17025, GEAE S400 (T1225 & T9317), GEAE S-1000. REFER TO WWW.ATIMETALS.COM TO ACCESS THE CURRENT ATI FRP OUALITY CERTIFICATIONS.

ATI FLAT ROLLED PRODUCTS HAS RECEIVED NADCAP APPROVAL FOR CHEMICAL, MECHANICAL, METALLOGRAPHIC, HARDNESS, CORROSION TESTING, MECHANICAL TEST SPECIMEN PREPARATION, AND HEAT TREATMENT OF SPECIMENS.

VERIFICATION OF SCOPE AND ACCREDITATION IS AVAILABLE ONLINE.

EN 10204:2005 3.1 CERTIFICATE.

TESTING WAS PERFORMED AT THE FOLLOWING LOCATIONS:

LO = ATI-FLAT ROLLED PRODUCTS; ROUTE 981 NORTH; LATROBE, PA 15650

TC = ATI-FLAT ROLLED PRODUCTS; 1300 PACIFIC AVENUE; NATRONA HEIGHTS, PA 15065

PAGE 04 - CONTINUED ON PAGE 05

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Noreen Deferrari -Sr. Manager Quality, Corporate Quality Assurance

SHIP TO

CERTIFICATE OF TEST

AL 6168-8 417

		Flat Rolled Products
CUST. ORD. NO. & DATE	CUST. CODE	FINISHING LOCATION SHIPPER NO.
9417 FORMS DISTRIBUTION		UISVILLE, OH 542905
OLD SHIP SPEC	REPE ORDE 09560	
SOLD TO	PRIME	SEC.
	DSC	DSO
	10	

*** ENGLISH *** PRODUCT CODE MILL ORDER NUMBER DATE SHIPPED 13010105060000 | 31-057-041 08/21/17 SHIPPING LOCATION INVOICE MAT'L. 1340 INDIANAPOLIS IN 244093 399 SHIP TO

GRADE CARRIER - SUNTECK TRANSPORTATION "ATI 400" NICKEL ALLOY SHEET C R CUT LENGTHS ANNEALED #3/#4 POLISH 3 EDGE

> FOR ACCESS TO ONLINE CERTIFICATES OF TEST <<<<<< >>>>>>> REGISTER AT MYATI.ATIMETALS.COM <<<<<< >>>>>>>

PAGE 05 - FINAL PAGE.

** METRIC TO FOLLOW

08/21/17 15:34:46

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