

**NOTICE OF SHIPMENT/
PACKING LIST**



AL 6168-4 1211

CERTIFICATE OF TEST

CUST. ORDER NO. & DATE 2DE-377-KD 08/22/12		CUST. CODE 873376	ACCEPTING MILL LOUISVILLE, OH	SHIPPER NO. 556417	PRODUCT CODE 13020116060000	MILL ORDER NUMBER 32-082-123	DATE SHIPPED 10/17/12
FORMS DISTRIBUTION SOLD TO → 1 SHIP TO → SPEC →		REPEAT ORDER 93433-6	DO RATE 21	GOV'T. CONTRACT	MAT'L. 6140	SHIPPING LOCATION LOUISVILLE OH	INVOICE 243245
		PRIME DSO 504	SEC. DSO				

GRADE AND SPECIFICATIONS
ATI GRADE 4 TITANIUM SHEET C R COILS ANNEALED 1BA FIN 3 EDGE (AMS 4901S) (AMS-T-9046A CP-1) (S-1000 DATED 8/1/2011) (S-400 DTD 10/10/2011) (ASTM-F-67-06) (ISO 5832-2:1999E) (DMS 2442 REV E) (RR9000:SABRE) (ASTM-B-265-11) (DMS 1536 REV L) (07/13/11 CLARIFICATIONS DMS 1536) (MIL-T-9046J & AM 2-CANC 09/17/99) (11/17/00 EXCEPT TO MIL-T-9046J)

CARRIER - CUSTOMER TRUCK

ITEM	PCS	DIMENSIONS W/G/L	HEAT #	LIFT #	TEST #	GROSS	TARE	NET	THEO	TAG #/	CD	SKID #
001A	1	48.7.063/285.	N74TEM	09441T417CBC	L255725	1770	40	1730	1682	893165		
P		1 SKID				1770	40	1730	1682			

TYPE HEAT/TEST	---C---	---TI---	---N---	---FE---	---O---	R-EACH	R-TOTL
HEAT N74TEM	.005	BAL	.01	.21	.30	<.1000	<.3000
TEST LOCATION	RW	RW	RW	RW	XX	XX	

ITEM TEST NO	YIELD PSI *	TENSILE PSI	% ELONG IN 2"	% R/A	HARDNESS	BEND	ALPHA CASE	GRAIN SIZE	H2 CHECK
001A L255725	L 74000.	96000.	27.			L PASS	PASS	9.	.0014
TEST LOCATION	TC	TC	TC			L PASS	PASS	9.	.0025

* Y.S. BY 0.2% OFFSET METHOD

ITEM TEST NO	YIELD PSI *	TENSILE PSI	TRAN ELONG IN 2 INCH	BEND BOTTOM	BEND	BEND BOTTOM	BEND
001A L255725	T 86000.	98500.	29.	L PASS	L PASS	T PASS	T PASS
TEST LOCATION	TC	TC	TC	L PASS	L PASS	T PASS	T PASS

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10/17/12 09:21:40

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.

Material Safety Data Sheets for this product have been supplied to your Purchasing Department. For an additional copy phone 724-226-5980. CAUTION: Processing that makes fumes, dust, or solutions may cause lung disease. See Material Safety Data Sheets for further information.

WARNING

Les fiches d'information—sécurité de ce produit ont été fournies à votre département chargé des achats. Pour obtenir des exemplaires supplémentaires veuillez téléphoner au numéro suivant 724-226-5980. Attention: les traitements entraînant la production de vapeurs, poussières, ou solutions peuvent, être cause de maladies pulmonaires. Pour plus de renseignements se référer aux fiches d'information—sécurité.

The above is a true copy of data on file. The material and test results conform to the sales contract and specification(s) as set forth in Allegheny Ludlum's Order Acknowledgement.

Stephen Wolf

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		504					

GRADE AND SPECIFICATIONS CARRIER - CUSTOMER TRUCK
 ATI GRADE 4 TITANIUM SHEET C R COILS ANNEALED 1BA FIN 3 EDGE (AMS 4901S) (AMS-T-9046A CP-1) (S-1000 DATED 8/1/2011) (S-400 DTD 10/10/2011) (ASTM-F-67-06) (ISO 5832-2:1999E) (DMS 2442 REV E) (RR9000:SABRE) (ASTM-B-265-11) (DMS 1536 REV L) (07/13/11 CLARIFICATIONS DMS 1536) (MIL-T-9046J & AM 2-CANC 09/17/99) (11/17/00 EXCEPT TO MIL-T-9046J)

ITEM TEST NO	TRAN ELEV	AMS ELEV.	MELT	PREDOMINAT	AVERAGE	
001A L255725	TEMP .2%YS	TEMP YIELD	SOURCE	GRAIN SIZE	GRAIN SIZE	BEND
	*48500.	*41500.	1.	9.	9.	T PASS
	*36800.	*36800.		9.	9.	T PASS
TEST LOCATION	WM	WM		TC	TC	TC
METALLOGRAPHIC MAGNIFICATION: 100X ETCHANT USED: KROLLS ETCH						

GRADE VERIFICATION WAS CARRIED OUT SPECTROSCOPICALLY

DIN EN 10204:2005 - 3.1 CERTIFICATE DOES NOT INDICATE PED APPROVAL FOR THIS MATERIAL.

HEAT NUMBERS BEGINNING OR ENDING IN EM WERE MELTED IN RICHLAND, WA.
 HEAT NUMBERS BEGINNING OR ENDING IN WC WERE MELTED IN ALBANY, OR.

ATI ALLEGHENY LUDLUM DOES NOT USE MERCURY IN THE TESTING OR PRODUCTION OF ITS PRODUCTS

MATERIAL MELTED AND ROLLED IN THE UNITED STATES AND COMPLIES WITH DFARS JANUARY 2010 EDITION, SECTION 252.225-7008.

WESTMORELAND MECHANICAL TESTING & RESEARCH, YOUNGSTOWN, PA (T7869) IS A GEAE S400 AND ISO/IEC 17025 APPROVED FACILITY.

THIS CERTIFICATE OF TEST SHALL NOT BE REPRODUCED EXCEPT IN FULL. MATERIAL MELT AND CHEMICAL TESTING WERE PERFORMED BY AN OUTSIDE ATI AL APPROVED SUPPLIER.

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Stephen Wolf
 Director, Corporate Quality Assurance



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CARRIER - CUSTOMER TRUCK

ATI ALLEGHENY LUDLUM WORKS TO THE ROLLS ROYCE SABRE QUALITY MANAGEMENT SYSTEM.

ATI ALLEGHENY LUDLUM PERFORMS CHEMICAL ANALYSIS BY THE FOLLOWING TECHNIQUES:

- 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

MILITARY STANDARD MIL-T-9046 WAS CANCELLED 09/17/99 AND REPLACED BY AMS STANDARDS.

MATERIAL TESTED AT ATI ALLEGHENY LUDLUM GEAE S400 APPROVED FACILITIES (T1225 & T9317):
NATRONA HEIGHTS, PA TECHNICAL CENTER; BRACKENRIDGE, PA AND NEW BEDFORD, MA.

ATI ALLEGHENY LUDLUM HOLDS SEVERAL QUALITY AND LABORATORY CERTIFICATIONS THAT INCLUDE ISO 9001, ASPICE, AD 2000-MERKBLATT WO, EU PRESSURE EQUIPMENT DIRECTIVE 97/23/EC, NADCAP, ISO/IEC 17025, GEAE S400, GEAE S-1000. REFER TO WWW.ALLEGHENYLUDLUM.COM TO ACCESS THE CURRENT ATI AL QUALITY CERTIFICATIONS.

PRODUCT WAS ANNEALED BY HEATING TO A TEMPERATURE WITHIN THE RANGE 1200 TO 1500 F (649 TO 816C), HOLDING AT THE SELECTED TEMPERATURE (+/- 25F OR 14C) FOR A TIME COMMENSURATE WITH THE THICKNESS AND THE HEATING PROCEDURE USED, AND COOLING AS REQUIRED.

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Les fiches d'information-sécurité de ce produit ont été fournies à votre département chargé des achats. Pour obtenir des exemplaires supplémentaires veuillez téléphoner au numéro suivant 724-226-5980. Attention: les traitements entraînent la production de vapeurs, poussières, ou solutions peuvent, être cause de maladies pulmonaires. Pour plus de renseignements se référer aux fiches d'information-sécurité.

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Stephen Wolff
Director, Corporate Quality Assurance

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THE NUMERIC CODES SHOWN UNDER MELT SOURCE CAN BE INTERPRETED AS FOLLOWS:
 1. MATERIAL MELTED, ROLLED AND TESTED IN THE UNITED STATES.
 2. FOREIGN MELT; ROLLED AND TESTED IN THE UNITED STATES.

TESTING WAS PERFORMED AT THE FOLLOWING LOCATIONS:
 RW = ATI-RICHLAND; 3101 KINGSGATE WAY; RICHLAND, WA. 99354
 TC = ATI-ALLEGHENY LUDLUM; 1300 PACIFIC AVENUE; NATRONA HEIGHTS, PA 15065
 WM = WESTMORELAND MECHANICAL TESTING; 221 WESTMORELAND DRIVE; YOUNGSTOWN, PA 15696
 XX = CALCULATED

<<<<<<<< FOR ACCESS TO ONLINE CERTIFICATES OF TEST >>>>>>>>
 <<<<<<<< REGISTER AT WWW.ALCEXTRA.COM >>>>>>>>

***** PRELIMINARY CERTIFICATE OF TEST *****

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The covers are for information on the material and test results only. They are not a contract and should not be used as set forth in Allegheny Ludlum's Order Acknowledgement.

Stephen Wolf
 Director, Corporate Quality Assurance