

	<input type="checkbox"/> RMI TITANIUM COMPANY 1000 WARREN AVE. NILES, OHIO 44446	DATE	SALES ORDER NO.	GRADE	PACKING LIST NO.
	<input checked="" type="checkbox"/> RTI TRADCO 1701 WEST MAIN ST. WASHINGTON, MO 63090	2/1/2019	328826	6Al-4V	N/A
IDENTIFICATION & REFER		CUSTOMER NAME			CUSTOMER ORDER NO.
MATERIAL NUMBER		MATERIAL			7000017927
PRODUCTION ORDER		H.R. ANN. & CLD. TI SHEET			
INGOT NO		SPECIFICATION			
LOT		AMS 4911R DMS 1592H MIL-T-9046J AB-1 AM. 2			
S-R		ASTM B 265-15 GR. 5 S-400 DTD 6/3/16 S-1000 DTD 1/19/17			
		F-14D DTD 6/28/17 F-17C DTD 7/1/15 F-22B DTD 10/16/14 F-23D DTD 5/15/17			
		PWA 300BP PWA 310BG EN 10204:2004 3.1 ISO 5832 PT3 DTD 10/15/16 CMMPO15E			
		ASTM F 1472-14 ASQR-01 REV. 10 AMS-T-9046A AB-1 MIL-T-9046H TYPE 3 COMP. C.			

CHEMISTRY		HEAT CODE: PBIBE		<input checked="" type="checkbox"/> INGOT (AVERAGE of TOP-CENTER-BOTTOM)		<input type="checkbox"/> INGOT (AVERAGE of TOP-BOTTOM)		<input type="checkbox"/> FINAL PRODUCT	
ELEMENT		TEST		TEST INFORMATION		FRACTURE TOUGHNESS		KSI √ IN	
				LAB		Specimen Size:			
C	.014	Chem/Hyd	ASTM E 1447-09	RTI Tradco,	Washington, Mo	JD	Toughness #	Val.	Ck
N	.004	Balance	Of Chem	RMI Titanium,	Niles, OH				
Fe	.17	Tensile	ASTME 8-16A	Tradco Inc.,	Washington, MO				
Al	6.08	Bend	ASTME 290-14	RTI Tradco,	Washington, Mo				
V	3.87	Micro	Surface Cont.						
O	.16	ASTM	J-11/ASTME 407-07	RTI Tradco,	Washington, Mo				
Y	<50PPM								
RESIDUAL ELEMENTS, EACH		<.10%							
RESIDUAL ELEMENTS, TOTAL		<.30%							
CHEMS REPORTED IN %		UNLESS OTHERWISE INDICATED							
CHEMISTRY TEST METHODS:									
ALLOY CHEM:		ASTM E2994-16							
O2/N2:		ASTM E 1409-13							
HYDROGEN:		ASTM E 1447-09							
CARBON:		ASTM E 1941-10							
TI	BALANCE								
FINAL PRODUCT	OXY HYD(PPM)	12							

PROPERTIES	ROOM TEMP.		ROOM TEMP.	
	L	T	L	T
ULTIMATE KSI	144.9	148.9	142.6	/
YIELD (.2% OFFSET)	143.1	143.9	139.6	/
% ELONGATION (INCHES)	141.1	146.1	141.0	/
% REDUCTION IN AREA	135.5	136.2	138.4	/
BEND 105	13.4	14.1	11.4	/
HARDNESS	13.0	13.4	13.0	/
BETA TRANSUS	4.5 TR	9.0 TD	BEND 180	/
CREEP	4.5 TR	9.0 TD	STATIC NOTCH	LAB ANN. 1325°F 20 MIN. & A.C.
ULTRASONIC	PROD. ANNEAL 1450°F 15 MIN. A.C.			


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SHIPPING	OTHER DATA: <input checked="" type="checkbox"/>
NO. OF PIECES	INGOT WAS MELTED AT RTI-NILES, NILES, OHIO USA. MELT METHOD: 2X VAR. MATERIAL IS FREE OF MERCURY, RADIUM, LUMINOUS OR ALPHA SOURCE MATERIALS AND HAS NO WELD REPAIR. MATERIAL MELTED & ROLLED IN THE U.S. & COMPLIES WITH DFARS EDITION 1998, SECTION 252-225-7014, -7008, -7009. MATERIAL HAS BEEN TESTED IN ACCORDANCE WITH THE RMI/PWA VENDOR AGREEMENT LABORATORY CONTROL AT SOURCE (LCS). TESTING WAS CONDUCTED IN COMPLIANCE TO MCL MANUAL SECTION F-23. RTI TRADCO, WASHINGTON, MO. AEBG NO. T6060 / RMI CO., NILES, OH. AEBG NO. 72566. PRODUCT CONFORMS TO ALL OTHER TECHNICAL REQUIREMENTS OF THE SPECIFICATION. MATERIAL CHECKED FOR SURFACE CONTAMINATION AND MEETS THE REQUIREMENTS OF THE TEST. (ETCHANT - 2% HF / 98% WATER - 100X, 400X & 500X MAG.). MICROSTRUCTURE IS ACCEPTABLE AND MEETS THE REQUIREMENTS OF THE TEST. (ETCHANT - 2% HF / 98% WATER - 100X MAG.). SHEETS TESTED # 1-4 L&T
WEIGHT (LBS)	
SIZE (IN)	0.0320 X X
TEST PIECES	X X
THIS IS TO CERTIFY THAT THE ABOVE TEST RESULTS ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY AND CONFORM TO ORDER REQUIREMENTS	

NAME/TITLE: RENEE SCHNEIDER, CERTIFICATION SPECIALIST  
 SIGNED: *Renee Schneider*  
 DATE: 5-22-20



### TEST REPORT

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	<input checked="" type="checkbox"/> RTI TRADCO 1701 WEST MAIN ST. WASHINGTON, MO 63090			2/1/2019	328826	6Al-4V	N/A
IDENTIFICATION & REFER				CUSTOMER NAME		CUSTOMER ORDER NO.	
MATERIAL NUMBER				NCM SOUTHEAST		7000017927	
PRODUCTION ORDER				MATERIAL H.R. ANN. & CLD. TI SHEET			
INGOT NO				SPECIFICATION			
8F45181				AMS 4911R DMS 1592H MIL-T-9046J AB-1 AM. 2			
LOT				ASTM B 265-15 GR. 5 S-400 DTD 6/3/16 S-1000 DTD 1/19/17			
S-R				F-14D DTD 6/28/17 F-17C DTD 7/1/15 F-22B DTD 10/16/14 F-23D DTD 5/15/17			
30267487				PWA 300BP PWA 310BG EN 10204:2004 3.1 ISO 5832 PT3 DTD 10/15/16 CMMP015E			
				ASTM F 1472-14 ASQR-01 REV. 10 AMS-T-9046A AB-1 MIL-T-9046H TYPE 3 COMP. C.			

### REISSUE INFORMATION

REASON	DATE	NAME - SIGNATURE
REISSUED TO UPDATE AMS 4911 TO R & ADD CMMP015E.	5/22/2020	RENEE SCHNEIDER, CERTIFICATION SPECIALIST
		<i>Renee Schneider</i>

RO 5/25/20