

TEST REPORT



ATLAS TESTING LABORATORIES, INC.

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IG

PO# 19-11236

DATE: 05/07/19

ATL# 955523

CLIENT: TMS TITANIUM
ATTN: QUALITY CONTROL
12215 KIRKHAM ROAD SUITE 300
POWAY, CA 92064

QTY: 1
1.375" THK X 3" X 3"
HEAT# MUA7603A-A2
REF: 19-11176

MATERIAL: 6Al-4V Ti (COND. A)

SPEC: ASTM-B-265/15 GR. 5

TENSILE TEST (METHOD: ASTM-E8/16A)

	INSPECTION				YIELD		ULTIMATE		ELONGATION IN 4D			REDUCT OF AREA		
SPECIMEN ID	TEMP	VISUAL INSPECT OK?	ORIG. DIAM.	ORIG. AREA	ACTUAL LOAD IN LBS	KSI	ACTUAL LOAD IN LBS	KSI	ORIG. GAGE LENGTH	ELONG INCHES	PER-CENT	FINAL DIAM.	PER-CENT RofA	LOC. OF FRACT (A)
L	RT	OK	0.252	0.0499	6701	134.3	7363	147.6	1.00	0.19	19.0	0.213	28.6	1
REQUIRED, MINIMUM:						120.0		130.0			10.0		-	

Strain Rate: 0.005 inch per inch per minute; Yield determined at 0.2% Offset; Elongation calculated after fracture ATE# 504

(A) 1 = Center Fracture; 2 = Outer Quarter Fracture; 3 = Fractured @ Gage Mark; 4 = Fractured @ Radius; 5 = Material Flaw/Defect

CHEMICAL ANALYSIS: (% BY WEIGHT)

	Al	V	Fe	O.E	O.T	Ti	*C	**O	**N	***H
Actual:	6.3	4.2	0.17	<0.1	<0.4	Rem.	0.01	0.20	<0.01	0.002
Min Req:	5.5	3.5	-	-	-	-	-	-	-	-
Max Req:	6.75	4.5	0.40	0.1	0.4	Rem.	0.08	0.20	0.05	0.015

METHOD: ASTM-E1086/14 MOD

ATE# 202 OES

STD'S: NBS654B

METHOD: ASTM-E1941/10(16)

ATE# 200

STD'S: 502-888, AR585 *by combustion

METHOD: ASTM-E1409/13

ATE# 207

STD'S: AR651, AR631, AR641 **by inert gas fusion

METHOD: ASTM-E1447/09(16)

ATE# 207

STD'S: AR651, AR631, AR641 ***by inert gas fusion

Remarks: Material as tested, conforms to requirements.

Respectfully Submitted:

Wendy P. Franco, Quality Assurance

Date: 5/7/19

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