

EXOVA

10005 Freeman Avenue, Santa Fe Springs, CA. 90670
 Tel: (562) 946-1721 Fax: (562) 944-8389 www.exova.com



Customer: TITANIUM METAL SUPPLY
 12215 KIRKHAM ROAD
 POWAY, CA 92064
 Material: 6Al-4V Titanium
 Specification: AMS 4911, Rev: J***
 ASTM B265-08B COND: ANNEALED
 Misc.: TIMET MAT'L

PO/SO: 10-2360

Lab No: 503840

Date: 03/13/13

P/N:
 Size: 0.063" THK X SAMPLE X SAMPLE

Heat Number: R-3806
 Other: SHEET

CERTIFICATION OF TEST

METALLURGY	TENSILE TEST		TEMP'F	STRESSED DIM	STRESSED AREA	TYS @ 0.2% OFF		TENSILE STRENGTH		ELONG (4D)		RED. OF AREA	
	LOC/ORIENTATION					LBS	KSI	LBS	KSI	IN	%	FIN. DIM.	%
Alpha Case Conforms No evidence of alpha case.	LONG		RT	.0634 T	.0319	4528	141.9	4662	146.1	0.300	15.0		
Etch/Mag: ASTM #11/500x	LONG TRANS		RT	.0638 T	.0321	4524	140.9	4656	145.0	0.280	14.0		
Microstructure Conforms That resulting from alpha-beta processing. Equiaxed & elongated alpha in a transformed beta matrix.	Min. Requirements			.503 W			126		134	2.0G	10		
Etch/Mag:ASTM #151/100,200x													

Conforms to requirements.

***Corrected Certification

Signed for and on behalf of Exova

Accredited

MEM PAGE: 1 of 3



LABORATORY ACCREDITATION BUREAU
 ACCREDITED ISO/IEC 17025
 Certificate #L2195.01 Testing

David Tallini

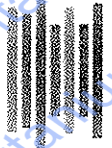
David Tallini, Quality Manager
 EXOVA

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Materials Testing Laboratory

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CHEMISTRY ELEMENT	MINIMUM REQ'S	MAXIMUM REQ'S	ACTUAL	COMMENTS
Unless otherwise indicated all units are in weight %				
Al	Aluminum	5.50	6.75	6.41
V	Vanadium	3.50	4.50	3.91
Fe	Iron		0.30	0.13
O2	Oxygen		0.20	0.16
C	Carbon		0.08	0.02
N2	Nitrogen		0.05	0.01
H2	Hydrogen		0.015	0.006
Ti	Titanium	BAL		BAL

Conforms to requirements.

Comment: METHOD: XRF, COMBUSTION, IGF.

***Corrected Certification

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Accredited

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David Taffini
 David Taffini, Quality Manager
 EXOVA



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CERTIFICATION OF TEST

BEND TEST

One transverse specimen was bent 105 Deg. over a 9T dia.
mandrel. Visual inspection revealed no evidence of cracks.

Conforms to Requirements.

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MEM Page: 3 of 3

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Certificate AL 2195-01 Testing

David Tallini, Quality Manager
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