

**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 Grade 5  
 Specification: ASTM B265, Rev: 11

PO/SO: 12-5018  
 P/N:  
 Size: 0.080" THK X 7" X 7" CORNER

Lab No: 563747 Date: 07/01/12  
 Heat Number: R9199  
 Other: SHEET

**CERTIFICATION OF TEST**

METALLURGY	TENSILE TEST LOC/ORIENTATION	TEMP'F	STRESSED DIM	STRESSED AREA	TYS @ 0.2% OFF		TENSILE STRENGTH		ELONG (4D)		RED. OF AREA	
					LBS	KSI	LBS	KSI	IN	%	FIN. DIM.	%
	1/4T LONG	RT	.0806 T	.0205	2910	142.0	3061	149.3	0.159	15.9		
	Min. Requirements		.254 W			120		130	1.000G	10		

Conforms to requirements.

MEM PAGE: 1 of 3

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Signed for and on behalf of Exova



*[Signature]*  
 Bob Groner, General Manager  
 EXOVA



Materials Testing Laboratory

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CERTIFICATION OF TEST				
CHEMISTRY ELEMENT	MINIMUM REQ'S	MAXIMUM REQ'S	ACTUAL	COMMENTS
Unless otherwise indicated all units are in weight %				
N2 Nitrogen		0.05	0.01	
C Carbon		0.08	0.03	
H2 Hydrogen		0.015	0.006	
Fe Iron		0.40	0.12	
O2 Oxygen		0.20	0.17	
OE Other Elements Each		0.1	0.1	Less than
OET Other Elements Total		0.4	0.4	Less than
Ti Titanium	BAL		BAL	
Al Aluminum	5.5	6.75	5.98	
V Vanadium	3.5	4.5	3.7	

Conforms to requirements.

Comment: METHOD: XRF, COMBUSTION, IGF.

Signed for and on behalf of Exova

*[Signature]*  
 Bob Groner, General Manager  
 EXOVA



MEM PAGE: 2 of 3

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**CERTIFICATION OF TEST**

**BEND TEST**

One transverse bend was subjected to 2 separate bends so that each surface was tested in tension. A bend factor of 10T dia. and bend angle of 105 degrees was used. Visual inspection at 20X revealed no evidence of cracks.

One long bend was subjected to 2 separate bends so that each surface was tested in tension. A bend factor of 10T dia. and bend angle of 105 degrees was used. Visual inspection at 20X revealed no evidence of cracks.

Conforms to Requirements.

MEM Page: 3 of 3

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*Bob Groner*  
Bob Groner, General Manager  
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