



CERTIFICATE OF TEST

Certification Date
14-MAR-2013

CUSTOMER ORDER NUMBER

13415 - 1

EARLE M. JORGENSEN COMPANY
P.O. BOX 490130
1775 101ST AVENUE NE
BLAINE MN 55449

Invoice Number
S723997

CUSTOMER PART NUMBER

SOLD TO: DOERING COMPANY

6343 RIVER ROAD SE
CLEAR LAKE MN 55319

SHIP TO:

DOERING COMPANY

6343 RIVER ROAD SE
CLEAR LAKE MN 55319

Description: 6061-T6511 EXTRUDED BAR AMS QQ-A-200/8
1-1/2 RD X 12' Line Total: 1248 LB
HEAT: 201303600 ITEM: 513159

Specifications: ASTM B221 12A AMS QQ A 200/8

ALUMINIUM CHEMICAL ANALYSIS

DESCRIPTION:

	SI	FE	CU	MN	MG	CR	ZN	TI
MIN	0.4		0.15		0.8	0.04		
MAX	0.8	0.7	0.4	0.15	1.2	0.35	0.25	0.15

OTHERS : EACH TOTAL
0.05 0.15 AL REMAINDER

RCPT: R929018
MILL : SERVICE CENTER METALS COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	45.9	50.0	11.8		
	45.2	49.1	12.6		

DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	51.0	54.6	13.4		

DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	49.1	52.0	13.6		

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination.

We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

Material did not come in contact with mercury while in our possession.

STEVE TEIPEL

MANAGER, QUALITY ASSURANCE



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DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS
	47.5	51.2	13.1		

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The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

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STEVE TEIPEL

MANAGER, QUALITY ASSURANCE



SERVICE CENTER METALS
 5850 Quality Way
 Prince George, VA 23875

**CERTIFIED INSPECTION REPORT AND TEST RESULTS
 FOR EXTRUDED PRODUCTS**

OUR ORDER NUMBER	ITEM
155547	1

BILL TO	MANIFEST NUMBER	DIE NUMBER	DATE OF SHIPMENT	CERTIFICATION
Metals USA - Rockford	165895	RD0010	8/3/2012	ASTM-B221-12 StencilContinuous
SHIP TO	CUSTOMER PO	ALLOY / TEMPER	SALESPERSON	SPECIFICATION
Metals USA - Rockford	RCK-57381	6061-T6511	David Schroeder	AMS-QQA-200/8-07
Quantity Certified	CUSTOMER PART NUMBER	DESCRIPTION		
2,096 lbs	RD0010	Lightning Rod Tile 1.500 + .005/- .004		

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCM extrusions are manufactured in the USA.

Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6

Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
91	201212493	07/25/12	47.8	44.2	13.7
92	201212493	07/25/12	48.9	46.0	12.5
93	201212493	07/25/12	47.9	44.7	14.9
94	201212493	07/25/12	49.0	45.9	11.6
95	201212493	07/25/12	53.6	50.0	12.8

METALS USA - MPLS
 SO NO 51802-1
 SOLD TO Debing Co
 PO NO 12-11098
 DATE 11-21-12

Chemical Composition for Aluminum Alloy 6061

Cast Number	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others		Melt Source: United States of America
											Each	Total	
062724	6061	0.72	0.34	0.32	0.09	0.89	0.10	0.11	0.02	97.41	0.05	0.15	
071622	6061	0.71	0.35	0.31	0.10	0.86	0.08	0.07	0.02	97.50	0.05	0.15	

Print Date: 8/3/2012

Calvin J. Wiggins, Director of Quality & Technical Services

Rev. 9/23/11 - UMS