



562-692-5911
562-695-2323 (fax)
la.sales@mcmaster.com



Certificate

Purchase Order PO26231775	Order Date 6/9/2026	Placed By Christopher Berger	McMaster-Carr Number 8677354-02	Number of Certificates 1
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Line	Product	Ordered	Status	Certificate
2	5679N48 Multipurpose 6061 Aluminum Bar, 1/4" Thick x 4-1/2" Wide x 2 Feet Long	1 each	1 each delivers June 11	287-2809



SO: 793129, LINE #2
 HEAT #: 25582932
 PO: FA-95968280

MCMaster-CARR SUPPLY CO
 16.2504.50024.00

0.250" X 4.500" X 24.000 ALUM RECT 6061T6511 EXTRUDED

Certified Inspection Report



Hydro Extrusion USA, LLC
 1550 N. Hydro Way
 --
 SPANISH FORK, UT
 84660-1349



Cert Number	Page
HYDRO4075951	Page 1 of 2

Sales Order Number	Line No.	Customer P/O	Cert Creation Date	Cert Print Date
1102273471	5	P36067-5	23-JUL-25	23-JUL-25

Invoice To Customer

HOWARD PRECISION METALS INC
 PO BOX 240127
 8058 N 87TH STREET
 --
 MILWAUKEE, WI - 53224

Ship To Customer

HOWARD PRECISION METALS INC
 8058 N 87TH STREET
 --
 --
 MILWAUKEE, WI - 53224

Quantity Shipped	Date Shipped	Item Description	Specification
1149 LB	23-JUL-25	Extruded Rectangular Bar 0.250 TK x 4.500 W 147 IN LN	ASTM B221 REV 21 Table 1 Chemical Composition Limits Table 2 Mechanical Property Limits ASME SB 221 REV 23
B/L	Item No.	FIN M-MILL	Table 1 Chemical Composition Limits
1502190	G031102804	W/F 1.323 F 7 CS 4.5 6061/T6511	Table 2 Mechanical Properties Limits AMS QQ-A-200/8 REV A
Delivery Id	Item No. Rev	Marking CONTINUOUS;	
5651373	--		
CustomerPart No.			
E16.2504.500			

Applicable Specifications, Revisions and Exceptions

For U.S. Government Sales (when applicable to extrusions):
 Items supplied are compliant with the Buy
 American Act DFARS 252.225-7001
 Melted in the USA or a qualifying country, as identified in the Buy
 American Act (DFARS 252.225-7001)

COMPOSITION NOTE: The values for 'Others Each' and 'Others Total' have met the limits as shown on this certified inspection report. Remainder is Aluminum.

Hydro Extrusion USA, LLC hereby certifies that the extrusions covered in this report are within the acceptable ranges of the sections or the specification tables, excluding footnotes, identified herein. Chemical composition may be based on results provided by external billet suppliers. Further information on processing, testing including ASTM B557, and inspection is available at www.hydro.com/technicalspecificationsENA. Sales are governed by the Extrusion North America Standard Terms and Conditions of Sale available at www.hydro.com/termsconditionsENA, unless otherwise mutually agreed in writing.

Signature And Title

Steven Tanner
 Quality Manager

23-JUL-25

Quantities per Lot / Packages

Package Number	Lot Number	Quantity	UOM	Weight	
				Gross	Net
G14-PKG2844800	25582932	71	PCS	1156	1149



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Composition Limits

Alloy	Alloy		Si		Fe		Cu		Mn		Mg		Cr	
	PCT (%)		PCT (%)		PCT (%)		PCT (%)		PCT (%)		PCT (%)		PCT (%)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
6061	--	--	0.40	0.80	---	0.70	0.15	0.40	---	0.15	0.80	1.20	0.04	0.35
Alloy	Zn		Ti		Others Each		Others Total							
	PCT (%)		PCT (%)		PCT (%)		PCT (%)							
	Min	Max	Min	Max	Min	Max	Min	Max						
6061	---	0.25	---	0.15	---	0.05	---	0.15						

Composition Results

Heat / Cast	Alloy	Country of Melt	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total
S25071503	6061	US	0.76	0.39	0.24	0.06	0.87	0.04	0.07	0.03	--	--

Mechanical Property - Test Limits

Test Type			UTS - L		TYS - L		EL 4D-Long	
UOM			KSI		KSI		PCT	
# of Test			--		--		--	
Test Temper	Lot Number	# of Tests	MIN Value	MAX Value	MIN Value	MAX Value	MIN Value	MAX Value
T6511	25582932	2	42.1	42.1	38.1	38.6	13.5	14.5

Notes

Mercury is not a normal contaminant in aluminum alloys and we do not knowingly use it in the manufacture of our goods.
 Extrusions produced to T6511 temper also meet T6 temper requirements
 Extruded in the USA
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