



Hydro Extrusion USA, LLC
 1550 KIRBY LANE
 --
 SPANISH FORK, UT
 84660-1349

Certified Test Report

Sales Order Number 1101461855		Line No. 1	Customer P/O 5400427555-R05-10	Cert Number HYDRO2982142	Page 1 of 3
				Cert Creation Date 02-DEC-18	Cert Print Date 02-DEC-18

Invoice To Customer

THYSSENKRUPP MATERIALS CA LTD
 COPPER & BRASS SALES
 ACCOUNTS PAYABLE
 P.O. BOX 5116
 SOUTHFIELD, MI - 48086-5116

Ship To Customer

THYSSENKRUPP MATERIALS CA LTD
 COPPER & BRASS SALES CANADA
 9451 45 AVE NW
 --
 EDMONTON, AB - T6E 6B9

Quantity Shipped	Date Shipped	Item Description	Specification
5540 LB	02-DEC-18	ACC-U-LINE Extruded ACC-U-ROD 5.000 DIA +/-017 SECT 503296 144.000 IN LN FIN M-MILL W/F 23.091 F 1 CS 5 6061/T6511H Marking CONTINUOUS;	ASTM B221 REV 14 Table 1 Chemical Composition Limits Table 2 Mechanical Property Limits ASME SB 221 REV 17 Table 1 Chemical Composition Limits Table 2 Mechanical Properties Limits AMS QQ-A-200/8 REV A
B/L	Item No.		
976555	G03305804		
Delivery Id	Item No. Rev		
5057390	--		
CustomerPart No.			
ALRD00243			

Applicable Specifications, Revisions and Exceptions

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 specification tables identified herein (excluding footnotes). 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.hydroextrusions.com/industryspecifications. Sales are governed by the Extrusion North America Standard Terms and Conditions of Sale available at www.hydroextrusions.com/termsconditions, unless otherwise mutually agreed in writing.

Signature And Title



Steven Tanner
 Quality Manager

02-DEC-18

Quantities per Lot / Packages

Package Number	Lot Number	Quantity	UOM	Weight	
				Gross	Net
G12-CAP1258326	23306229	4	PCS	1118	1108
G12-CAP1258338	23306229	4	PCS	1118	1108
G12-CAP1258339	23306229	4	PCS	1118	1108
G12-CAP1258347	23306229	4	PCS	1118	1108
G12-CAP1258348	23306229	4	PCS	1118	1108

Composition Limits

ANS



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Alloy	Si		Fe		Cu		Mn		Mg		Cr		Zn	
	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	---	0.25
Alloy	Ti		Others Each		Others Total									
	PCT (%)		PCT (%)		PCT (%)									
	Min	Max	Min	Max	Min	Max								
6061	---	0.15	---	0.05	---	0.15								

Composition Results

Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total
5047230	0.73	0.28	0.32	0.13	0.93	0.14	0.03	0.02	--	--
Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total
5047306	0.75	0.41	0.33	0.11	0.90	0.14	0.04	0.03	--	--
Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total
5047308	0.74	0.49	0.34	0.12	0.93	0.14	0.04	0.03	--	--
Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total
5047310	0.75	0.52	0.33	0.12	0.89	0.13	0.05	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
T6511H	23306229	2	57.0	58.9	53.4	55.0	12.0	13.5

Notes

For U.S. Government sales: Items supplied are compliant with the Buy American Act, FAR 52.225-1, and DFARS 252.225-7001.

Melted and manufactured in the USA.

Mercury is not a normal contaminant in aluminum alloys and we do not knowingly use it in the manufacture of our goods.



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