

# Certificate of Inspection and Conformance

S/N: 1007701052-2-1



**Alcoa Korea, Ltd.**  
Changwon Precision Extrusions

54, Sungju-dong, Changwon-City,  
Kyungnam, Korea (Zip:640-120)  
Tel.: 82 55 269 9000  
Fax: 82 55 269 9001

Customer	EMARK COMPANY LIMITED	Cust. Part Name	DIAPHRAGM (ORC)
Cust. PO No.	EL1011	Cust. Item No.	N/A
Final User PO No.	N/A	Alloy & Temp.	6061 T6
Cust. Serial No.	N/A	Part No.	N/A
Material Type	As Extruded	Temp. (Heat No.)	H0465-2 4-01A

Length	300 mm	Bundle	2	SMT Lot No.	01A	Part Qty	190 E.	Net Weight	505 KG
--------	--------	--------	---	-------------	-----	----------	--------	------------	--------

Chemical Composition										Unit: wt%	
Elements	Si	Fe	Mn	Mg	Cr	Zn	Ti	Zr	Others		
									Each	Total	
Requirement	0.4	0.700	0.150	0.150	0.040	0.250	0.150	—	—	—	
Billet Lot No	~0.800	max.	0.400	max.	~1.200	~0.140	max.	max.	—	—	
H0748	0.450	0.357	0.200	0.062	0.100	0.064	0.029	0.036	—	OK OK	
H0747	0.450	0.350	0.200	0.064	0.105	0.05	0.036	0.0	—	OK OK	

Mechanical Properties										*0.2percent offset method	
Temper of Test	UTS(ksi)		TYS(ksi)*		EL(%)		Hardness		EC(%IACS)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Requirement	170	—	110	—	7.0	—	—	—	—	—	
Actual	—	—	119	—	10.7	—	N/A	—	—	N/A	

1. Neither mercury nor any of its compounds are used in the manufacturing of our extrusions, rods and bars.  
 2. This material conforms with RoHS, and lead content does not exceed 0.4% by weight in case of material for a high degree of machinability alloy.

**Customer Requirements (if necessary)**

Dimension	Macro-Micro Structure	Ultrasonic Test	Surface Roughness
Passed	Passed	N/A	N/A

**Application Specification**

Specification No. / Revision / Amendment	We hereby certify that the material covered by this report has been inspected in accordance with, and has been found to meet, the applicable requirements as described herein, including any specifications forming a part of the description and that the samples representative of the material met composition limits and had the mechanical properties shown on the face of this sheet.
ASTM B 221 AMS-QQ-A-200/11	

Inspected by: Cha, Haeng-Jin
Quality Assurance Manager  
For and on behalf of ALCOA Korea, Ltd.
Date: Jun. 28, 2010

