

HT# 56630



**MATERIAL CERTIFICATION REPORT and CERTIFICATION OF QUALITY CONFORMANCE**

Customer Address  
 COPPER & BRASS SALES  
 ACCOUNTS PAYABLE  
 P.O. BOX 5116  
 SOUTHFIELD, MI 48086-5111

Shipping Address  
 COPPER & BRASS SALES  
 WESTERN REGION MATERIALS  
 13338 ORDEBENDR., BUILDING H  
 SANTA FE SPRINGS, CA 90670

Print Date Time 31-Mar-2015 9:35  
 Certification ID 160482-1  
 Customer Order 5400251058-R05  
 Ship Note 132660  
 Sales Order 122806

Grade: 304L  
 Specification: Type 304/304L/UNS S30400/S30403) - ASTM A182/A182M-14a (304/304L), AMS 5639H, ASTM A193/A193M-12p304B8, ASTM A320/A320M-14 (304, B8, B8A), ASTM A336/A336M-10a (F304/F304L), ASTM A580/A580M-13b, ASTM A276-13a, ASTM A479/A479M-14, ASTM A484/A484M-14, QQ-S-763F, AMS QQ-S-763C, AMS 5647J, ASME SA-182, SA-193, SA-320, SA-336, SA-479 2013 Edition, NACE MR0175/ISO.  
 Condition: HOT ROLLED / HOT FORGED, ANNEALED  
 Finish: ROUGH TURNED

Sales Order	Quantity	Heat	Lot ID	Weight	Size	Customer Mark
122806-1	1	56630	56630-2B	4.710 LB	Diam: 11.0850 in; Length: 170.7900 in	

Lot	Test	Result	Low Limit	High Limit	ASTM PRACTICES - ASTM A262	PASS
<b>SPECIFICATION RESULTS</b>						
<b>FINAL LADLE CHEMISTRY FOR AIRMELT</b>						
56630	C	0.012	0.000	0.030		
56630	Mn	1.76	1.25	2.00		
56630	P	0.030	0.000	0.040		
56630	S	0.021	0.020	0.025		
56630	Si	0.55	0.00	1.00		
56630	Cr	18.52	18.00	20.00		
56630	Ni	8.15	8.00	10.50		
56630	Mo	0.33	0.00	0.75		
56630	N	0.084	0.000	0.100		
56630	Cl	0.67	0.00	0.75		
56630	Co	0.15	0.00	0.20		

<b>PASS / FAIL TESTS</b>						
56630-2B	Carb Net	PASS				
56630-2B	Macro Etch	PASS				
<b>REDUCTION AREA</b>						
56630-2B	RA LT (%)	76.4	50	999		
<b>TENSILE</b>						
56630-2B	LT (BBI)	62840	75000	400000		
<b>2% YIELD OFFSET</b>						
56630-2B	LT (PSI)	38720	30000	400000		
<b>ELONGATION 4D</b>						
56630-2B	LT (%)	64	40	999		
<b>BRINELL</b>						
56630-2B	(BHN)	153	140	200		
<b>GRAIN SIZE</b>						
56630-2B	Grain Size (F)	3	0	9999		
56630-2B	Prac E LT					

The recording of false, fictitious, or fraudulent statements or entries on this document may be punishable as a felony under Federal Statute. The above are true and correct results of tests on samples of the material. Results conform to the specification(s) listed above and are on record. At time of shipment, items and/or material produced under this order have not come into contact with Mercury or its compounds.

From: TK Materials CA, Ltd.  
 Cust. M2M MACHINING  
 CstAr  
 Wgt.: 756 LB

Del.: 2404250980  
 CstOr 2012-603  
 Date 12/09/2015

*Thomas Sanchez*

