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SC 2824-90A.

C+B PO 77836 WO 5910 CPA 8 FOE 120 (3PCS)



GLORIA MATERIAL TECHNOLOGY CORP.

台南市新營區新中路35號  
NO. 35, HSIN CHUNG RD., HSIN YING,  
TAINAN, TAIWAN  
TEL : 886-6-6520031  
FAX : 886-6-6520088

INSPECTION CERTIFICATE

Messrs: COPPER & BRASS SALES

Order No: 2012008492

FILE NO: 2012007639-B

Grade: 316/316L

Size: 11"

HEAT-Lot No: SC2824-90A

Condition: HF-Solution Annealed-Turned

Part/Code No.: SSRD00244

P.O.NO.: 5400160412-R05

Date: 12/26/2012

Weight: 1219.0KG 2687.43LB

P'cs: 1

Chemical Composition (wt%)

	C	Si	Mn	P	S	Ni	Cr
Min.			1.25			10.00	16.00
Max.	0.030	1.00	2.00	0.040	0.030	14.00	18.00
Result	0.020	0.43	1.60	0.032	0.023	10.17 ✓	16.04 ✓

	Mo	Cu
Min.	2.00	
Max.	3.00	1.00
Result	2.14 ✓	0.27

Mechanical Properties Spec.

	Hardness	Hardness	Grain Size
	1/2R	Surface	ASTM E112
Spec.Min.			T
Spec.Max.	235HBW	235HBW	5
Result	147HBW	148HBW	5

OK with 5/3/13

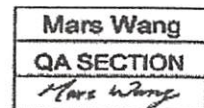
Corrosion Test  
ASTM A262 Practice E

Spec.Max.  
Result OK

Tensile Test

	Elongation(A)	Tensile Strength(Rm)	Yield Strength(0.2% Rp)	Reduction of Area(Z)
	1/2R L	1/2R L	1/2R L	1/2R L
	(Ave)	(Ave)	(Ave)	(Ave)
Unit	%	KSI	KSI	%
Min.	40	75	30	50
Max.		115		
Result	62	82.5	45.7	83

SV MC



Our quality and environment management systems have been certified by AS9100, ISO9001 QMS, ISO14001 EMS, OHSAS18001 OHS&S, and NADCAP. We hereby certify that the material described herein has been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification. Inspection Certificate comply with EN 10204 3.1.



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Specification:

- 1.ASTM A276-10.
- 2.NACE MRO175/ISO 15156-2009 (EXCEPT H2S TEST).
- 3.THYSSENKRUPP CBS 316L. NACE REV.0.
- 4.EN 10204 TYPE 3.1.
- 5.AMS 5648L.
- 6.AMS 5653G.
- 7.ASTM A479/A479M-11,

Remark:

- 1.MELTING PROCESS :EAF+LHF+VOD.
- 2.MATERIAL FREE FROM KNOWN CONTACT WITH MERCURY & RADIUM.
- 3.MATERIAL FREE FROM WELDS OR WELD REPAIRS.
- 4.SOLUTION TREATMENT : 1040 DEGREE C MIN, 30MINUTES+15MINUTES / PER INCH, WATER COOLED.
- 5.WE CERTIFY THAT OUR SUPPLIED MATERIAL IS COMPLIANCE TO ROHS DIRECTIVE.
- 6.REDUCTION RATIO :6:1.

SV  
WCC



Mars Wang  
QA SECTION  
Mars Wang

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