McMASTER-CARR®

Certificate

330-995-5500
330-995-9600 (fax)
cle.sales@mcmaster.com

Purchase Order	Order Date	Placed By	McMaster-Carr Number	Number of Certificates
P1474785	2/28/2023	Jane Beattey	6992804-02	1

Line		Product	Ordered	Status	Certificate
1	8949K33	Weldable Marine-Grade 464 Brass, 1" Thick Bar, 1-1/2" Wide, 3 Feet Long	10 each	10 each deliver March 17	208–6724

Your order is subject only to our terms and conditions, available at www.mcmaster.com or from our Sales Department.

CERTIFICADO DE CALIDAD
MILL TEST REPORT

nacional de cobre, s.a. de c.v.

FECHA / DATE: 29.05.2021

PLANTA: MX19 - Nacobre Celaya

CLIENTE/CUSTOMER:	109875 UNITED STATES BRASS & COPPER	PRODUCTO/PRODUCT:	22B1046410059
PEDIDO CLIENTE/P.O.:	20PPO02512-1	DESCRIPCION/DESCRIPTION:	BR STRIP 1.00" X 1.50" X 145" (H02) (SQ)
PEDIDO/ORDER:	147033422	ALEACION/ALLOY:	0464
NORMA CTE./CUST SPEC.:		TEMPLE/TEMPER:	1/2 DURO / 1/2 HARD
PARTE CTE./CUST. PART:	FEAS# 32357	PESO NETO/NET WEIGHT:	448.000 KG / 987.571 LB
NORMA/STANDAR	ASTM B21/21M-18	FORMA/FORM:	ARISTA VIVA / SQUARE CORNERS
		PRESENTACION/ PRESENTATION:	TRAMO RECTO / STRAIGHT LENGTH

COMPOSICIÓN QUIMICA REQUERIDA
CHEMICAL COMPOSITION REQUIRED

ELEMENTO	Cu	Fe	Pb	Sn	Zn
Max %	62.000	0.100	0.200	1.000	REM
Min %	59.000	------	------	0.500	REM

COMPOSICIÓN QUIMICA DETERMINADA
CHEMICAL COMPOSITION DETERMINED

No. DE MUESTRA / HEAT NUMBER / Colada		Cu	Fe	Pb	Sn	Zn
05908	Max	61.9900	0.0070	0.0110	0.7100	REM
05908	Min	61.2300	0.0030	0.0070	0.5870	REM

PRUEBAS FISICAS / MECANICAS . PHYSICAL / MECHANICAL PROPERTIES

PRUEBA / TEST	U/M	DETERMINADO / DETERMINED Mínima / Minimum	DETERMINADO / DETERMINED Máxima / Maximum	REQUERIDO / REQUIRED Mínima / Minimum	REQUERIDO / REQUIRED Máxima / Maximum
HARDNESS	HRB	70.0000	80.0000	60.0000	80.0000
DIMENSIONS: THICKNESS	IN	0.9975	0.9975	0.9950	1.0050
DIMENSIONS: WIDTH	IN	1.4940	1.4940	1.4920	1.5080
LENGTH	IN	145.5000	145.5000	144.0000	146.0000

THIS MATERIAL WAS PRODUCED IN COMPLIANCE WITH DIRECTIVE RoHS ANNEX AP.1 ART.4"

ORDEN / ORDER: 80388339

CAJA / BOX: 80388339

Entrega / Delivery: 82964536

OBSERVACIONES

MARIO ALBERTO BARBOZA FLORES

REVISO: CALIDAD
REVIEWED:QUALITY

HECHO EN MEXICO
MADE IN MEXICO

NACIONAL DE COBRE S.A. DE C.V CERTIFICA QUE EL MATERIAL EMBARCADO BAJO ESTA ORDEN HA SIDO INSPECCIONADO, PROBADO Y ENCONTRADO CONFORME A LA ESPECIFICACION APLICABLE A NUESTROS ARCHIVOS. SE ENCUENTRAN REPORTES DE PRUEBA SUJETOS A EXAMEN.
SE PROHIBE LA REPRODUCCION TOTAL O PARCIAL DE ESTE CERTIFICADO SIN LA AUTORIZACION DE LA GERENCIA DE CALIDAD.
NACIONAL DE COBRE, HERE BY CERTIFIES THAT MATERIAL SHIPPED UNDER THIS ORDER WAS BEEN INSPECTED, AND FOUND IN AGREEMENT WITH APPLICABLE SPECIFICATION, TEST REPORTS ARE ON FILE SUBJECT TO EXAMINATION.
THE COUNTRY OF ORIGIN OF THE CAST MATERIAL FOR THIS ORDER WAS MEXICO