



Management
System
ISO 9001:2015
www.tuv.com
ID: 910502371

Certificado de Calidad

IT020305 rev.01

N° NN-21015

Industrias Nelson
Av. Rivadavia 12140 – Ciudadela – Buenos Aires
info@industriasnelson.com.ar / www.industriasnelson.com.ar
T.E. 0800-333-4237

Descripción	Código	Certificado
CONECTOR RECTO 1" OD X 1/2" NPT	68S1608	AA-643 / AA-599
Componentes	Material	Certificado
BARRA HEXAGONAL 34mm	AISI 316L	AA-643 / AA-599

Protocolo de ensayo:

Tipo		Presión de trabajo	Estado	Presión de prueba	Estado	Tiempo
Hidráulico	1	3.000 PSI	Ok	4.000 PSI	Ok	60 segundos

Dimensional:

Se controlaron las roscas con el calibre correspondientes dando como resultado satisfactorio. Se controlaron también la rugosidad superficial y las dimensiones generales dando un resultado satisfactorio.

Visual/Funcional:

Se controlaron la porosidad, rebabas, ensamblado, terminación superficial y su función mecánica dando como resultado: satisfactorio

Observaciones :

Se certifica que las piezas descritas fueron construidas de acuerdo a lo indicado en nuestros estándares internos, que se cumplen de acuerdo a un sistema de Gestión de Calidad certificado ISO 9001:2015, manteniendo en archivo los certificados correspondientes a cada material.

Firma: **INDUSTRIAS NELSON S.A.**



VILLARES METALS

INSPECTION CERTIFICATE

ACC. TO EN 10204 3.1

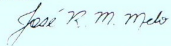
CERTIFICATE 746747

Page 1/ 1

INVOICE 579E15

AA-643

Our quality system is certified according to ISO 9001, TS 16949, NBR 15100 (AS 9100) and NADCAP (heat treatment and non-destructive tests). ISO 14001 Environmental Certification.

CUSTOMER JORVICAL ACEROS S/A						
PURCHASE ORDER / ITEM OC J401- / 04.09.2014						
JOB ORDER	LOT	PACKAGE	NET WEIGHT	QUANTITY		
1633824	1633824	1633824/01	1,261 KG	29		
VILLARES GRADE			SIMILAR GRADE			
V316UF			AISI316USIFAC			
DIMENSIONS		LENGTH RANGE	DRAWING NUMBER			
34.92 (-)0.160 (+)0.000		4,000 / 5,500				
PRODUCT		HEAT TREATMENT CONDITION		FINISHING		
Hexagon Bar		Solution Treated		Cold Drawn and Polished		
PRODUCT LINE		MELTING PROCESS			HEAT	
Hot Rolled		ELECTRIC ARC FURNACE + VOD			0806262	
CHEMICAL COMPOSITION (% in weight)						
Chemical Composition (% in weight)						
C 0.022	Si 0.38	Mn 1.47	P 0.032	S 0.022	Co 0.10	Cr 16.73
Ni 10.46	Cu 0.15	Al <0.005	N 0.0539			Mo 2.06
SPECIFICATIONS						
ASTM A276 / 13A, ASTM A479 / 14						
Grain Size according to specification ASTM E112						
Result: Approved						
GRAIN SIZE RESULT: 4 ASTM						
Tensile Test - longitudinal according to specification ASTM A370						
Specimen #: 29225		Position: Longitudinal		Temperature: 22.60 °C		
Dimension: 12.53 mm		Tensile Strength: 639 MPa		Yield Strength 0,2%: 493 MPa		
Reduction of Area: 72.6 %		Elongation: 47.5 %				
Hardness according to specification ASTM A370						
Result: 230 HBW						
Corrosion Resistance according to specification ASTM A262 (PR.E)						
Result: Approved						
Visual And Dimensional Inspections						
Result: Approved						
Anti-Mixture Testing						
Result: Approved						
REMARKS						
VILLARES METALS DECLARES THAT THIS PRODUCT IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE ORDER AND SPECIFICATION						
Sumaré PLANT / OFFICE R. Alfredo Dumont Villares, 155 13178-902 - Sumaré - SP - BRAZIL Phone: 55 19 3303-8000 Fax: 55 19 3303-8696 e-mail: metals@villaresmetals.com.br				11.03.2015  José Roberto Moreira Melo Product Engineering Dept Manager		

VIRAJ PROFILES LTD.

Regi & Mkt off: G-33 & 34, MIDC, Industrial Area, Tarapur, Thane (Dist), Maharashtra, INDIA - 401506, E-Mail: sales@viraj.com
 Works: SURVEY No- 114, 119 & 120, VILL. Mahagaon, Tal: Palgar, Dist: Thane-401501, MAHARASTRA, INDIA, vielqc@viraj.com

TEST CERTIFICATE

CUSTOMER	ORDER NO	PACKING LIST NO	INSPECTION NO	DATE
JORVICAL ACEROS S.A.	J-2468	51/935218/19	100001522016	07.02.2012
CATAMARCA, 1527 B1824ESI-LANUS			GRADE	HEAT No
OESTE			AISI 316	88413
PROVINCIA DE BUENOS AIRES				

BUNDLE NO :
5178802 , 5178803 ,

DESCRIPTION

STAINLESS STEEL BRIGHT BARS

COLD DRAWN

SIZE	SHAPE	TOLERANCE	LENGTH	PIECES	WEIGHT
34.925 MM	HEXAGON	H11	5.00 - 5.20	25	1.060 TO

CHEMICAL ANALYSIS

%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Cu	%Mo	%Co	%N2
0.0220	1.700	0.410	0.0220	0.0390	16.650	10.000	0.500	2.020	0.170	0.0800

TEST RESULTS

0.2% yield strength MPa	Tensile Strength MPa	Elongation %	Reduction Of Area %	Hardness BHN
421.0	661.0	44.0	68.0	195.0

SPECIFICATION:

MATERIAL CONFIRMS TO ASTM A 276-10 COND A,
 INTERGRANULAR CORROSION TEST SATISFACTORY AS PER ASTM A262-02a PRACTICE E.
 CERTIFIED AS PER EN 10204-3.1.

REMARKS

MATERIAL IS FREE FROM MERCURY CONTAMINATION, FREE FROM WELD OR WELD REPAIRS.
 MINIMUM SOLUTION ANNEALING TEMPERATURE 1050°C, SOAKING TIME 01 HR/INCH WATER QUENCHED.
 WE CONFIRM THAT THE MATERIAL HAS BEEN TESTED AND FOUND TO BE FREE FROM RADIOACTIVE CONTAMINATION.

We hereby certify that the material described above has been tested and complies with the terms of order/contract.


WORKS INSPECTOR
K R K MURTHY