



Management
System
ISO 9001:2015
www.tuv.com
ID: 910522371

Certificado de Calidad

IT020305 rev.01

N° NN-21014

Industrias Nelson
Av. Rivadavia 12140 – Ciudadela – Buenos Aires
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T.E. 0800-333-4237

Descripción	Código	Certificado
CONECTOR RECTO 1" OD X 3/4" NPT	68S1612	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

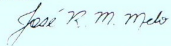
CERTIFICATE 746747

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 1633824	LOT 1633824	PACKAGE 1633824/01	NET WEIGHT 1,261 KG	QUANTITY 29		
VILLARES GRADE V316UF			SIMILAR GRADE AISI316USIFAC			
DIMENSIONS 34.92 (-)0.160 (+)0.000		LENGTH RANGE 4,000 / 5,500		DRAWING NUMBER		
PRODUCT Hexagon Bar		HEAT TREATMENT CONDITION Solution Treated			FINISHING Cold Drawn and Polished	
PRODUCT LINE Hot Rolled		MELTING PROCESS ELECTRIC ARC FURNACE + VOD				HEAT 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 Mo 2.06
Ni 10.46	Cu 0.15	Al <0.005	N 0.0539			
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