



**CERTIFICADO DE CALIDAD
QUALITY CERTIFICATE**

29/Abr/10

NO. CERTIFICADO: 31874
 CLIENTE/CUSTOMER: LION TUBE S DE R.L. DE C.V.
 DIRECCION/ADDRESS: AV. CIRCUITO MEXICO NUM. 205
 FACTURA/INVOICE:

PEDIDO

PART	METROS	CLAVE	DESCRIPCION	ORDEN	ESPECIFICACION
1	61.00	PL611/240	PIPE 316/L CON/COSTURA 11/2" CBD 40		ASTM A-312 VERSION 2008-A
2	61.00	PL6240	PIPE 316/L CON/COSTURA 2" CBD 40		ASTM A-312 VERSION 2008-A
3	30.50	PL6610	PIPE 316L C/COSTURA 6" CBD 10		ASTM A-312 VERSION 2008-A
4	6.10	PL6810	PIPE 316/316L C/COSTURA 8" CBD 10		ASTM A-312 VERSION 2008-A
5	61.00	PL611/440	PIPE 316/L CON/COSTURA 11/4" CBD 40		ASTM A-312 VERSION 2008-A

CHEMICAL ANALYSIS

PART	COLADA	C	Mn	P	S	Si	Cr	Ni	Mo	N	Cu
1	VLL020700	0.027	1.640	0.033	0.008	0.400	18.140	8.010	0.000	0.043	0.000
2	VLL020021	0.013	0.830	0.033	0.001	0.640	16.320	10.080	2.020	0.010	0.000
3	VLL020994	0.014	0.860	0.029	0.001	0.700	16.530	10.080	2.120	0.020	0.000
4	VLL020557	0.019	0.850	0.035	0.003	0.670	16.300	10.090	2.020	0.018	0.000
5	VLL010963	0.017	0.300	0.030	0.001	0.690	16.510	10.150	2.040	0.015	0.000

PRUEBAS MECANICAS

MECHANICAL TEST

PART	COLADA	TENSION		CEDEN		ALARG. DURBZA		APLAS DOBLES		PBST ABOC.	
		P.S.I.	P.S.I.	P.S.I.	P.S.I.	†	HRB				
1	VLL020841	91897	91640	39875	40215	52	85	OK	N/A	N/A	2289psi
2	VLL020021	82784	82505	39295	39608	53	76	OK	N/A	N/A	1621psi
3	VLL020994	83702	83375	39875	40314	54	80	OK	N/A	N/A	506psi
4	VLL020557	84628	84245	38425	38732	53	75	OK	N/A	N/A	429psi
5	VLL010963	85346	84970	39440	34738	57	75	OK	N/A	N/A	2108psi

506psi

PRUEBA HIDROSTATICA (HIDROSTATIC TEST) SI/YES () NO (X)

TEST PRESSURE RESULT:

CORRIENTES PARASITAS (EDDY CURRENT TEST) SI/YES (X) NO ()

RESULT: SATISFACTORY

EL MATERIAL FUE TRATADO TERMICAMENTE DE ACUERDO CON ASTM A-312

VERSION 08-A, ASME-SA 312

CERTIFICAMOS QUE EL MATERIAL AQUI DESCRITO CORRESPONDE AL NUMERO DE COLADA

Y COMPOSICION TAL COMO LO PROPORCIONA EL PROVEEDOR DE LA MATERIA PRIMA.

ESTANDO DE ACUERDO CON LOS REQUISITOS DE LA NORMA CORRESPONDIENTE.

WE CERTIFY THAT THE MATERIALS DESCRIBED HERE CORRESPOND TO THE HEAT NUMBER

AND CHEMICAL COMPOSITION AS FURNISHED BY THE PRODUCING MILL COMPLYING WITH

THE REQUIREMENTS OF THE SPECIFICATIONS NOTED.

PLEASE ANAHUAC Y CIAS. S.A. DE C.V.

CONTROL DE CALIDAD

QUALITY ASSURANCE MANAGER

FECHA

12 Abril 2010

E410

FIRMA

E. RUIZ