

**CERTIFICADO DE CALIDAD
QUALITY CERTIFICATE**

FECHA/DATE: 29/Abr/10
No. CERTIFICADO: 31875
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	PL6410	PIPE 316/L CON/COSTURA 4" CRD 10		ASTM A-312 VERSION 2008-A
2	61.00	PL6110	PIPE 316/L CON/COSTURA 1" CRD 10		ASTM A-312 VERSION 2008-A
3	61.00	PL6140	PIPE 316/L CON/COSTURA 1" CRD 40		ASTM A-312 VERSION 2008-A
4	61.00	PL6210	PIPE 316/L CON/COSTURA 2" CRD 10		ASTM A-312 VERSION 2008-A
5	488.00	PL4140	PIPE 304/L CON/COSTURA 1" CRD 40		ASTM A-312 VERSION 2008-A

CHEMICAL ANALYSIS

PART	COLADA	C	Mn	P	S	Si	Cr	Ni	Mo	N	Cu
1	VLL020214	0.015	0.880	0.034	0.002	0.620	16.370	10.060	2.000	0.013	0.000
2	VLL012132	0.013	0.790	0.028	0.001	0.670	16.510	10.240	2.060	0.018	0.000
3	VLL020599	0.022	0.750	0.031	0.004	0.590	16.540	10.030	2.010	0.012	0.000
4	VLL020354	0.018	0.870	0.034	0.001	0.670	16.510	10.240	2.060	0.018	0.000
5	VLL020377	0.025	1.430	0.034	0.010	0.430	18.300	8.060	0.000	0.035	0.000

PRUEBAS MECANICAS

MECHANICAL TEST

PART	COLADA	TENSION		CEDEN		ALARG. DUREZA		APLAS DOBLES		PEST ABOC.	
		P.S.I.	P.S.I.	P.S.I.	P.S.I.	‡	HRB				
1	VLL020214	85406	84970	38860	39118	55	75	OK	N/A	N/A	800psi
2	VLL012132	86888	86420	40745	41100	53	78	OK	N/A	N/A	2072psi
3	VLL020599	84221	83810	39150	39614	55	80	OK	N/A	N/A	2529psi
4	VLL020354	86630	86275	40890	49020	55	77	OK	N/A	N/A	1621psi
5	VLL020377	91826	91495	40745	41089	50	83	OK	N/A	N/A	3034psi

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 May 2010
E409

FIRMA

E. RUIZ