



**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474 3.1.B)

Numero:
Number:

26128

Pagina/Page:

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Tubos de Acero de México
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
(65550) C. de Flores, N.L.
(52) 81 8305 9600 tel.
(52) 81 8305 9630 fax.

Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	13086 - 13409 - 12701	Lista de Empaque: Packing List:	13558	Fecha/Date:	14 de Agosto de 2012
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-07, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB, NACE MR0103-2003		Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2007			Factura/Invoice: Bocas / Ends Biselado / Bevelled ends		

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION				PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C				
ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HBW	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	T59968	29	CODO 6 X 45° CED-XS	291	474	35	145					
2	T57395	1	CODO 6 X 45° CED-XS	323	479	44	103					
3	T61225	500	CODO 4 X 90° R.L. CED-STD	356	504	38	120					
4	T56078	20	CODO 6 X 90° R.C. CED-STD	323	488	43	100					
5	T60764	100	CODO 6 X 90° R.L. CED-STD.	313	471	34	150					
6	T60997	100	CODO 6 X 90° R.L. CED-STD.	289	476	31	149					
7	T50962	12	CODO 14 X 90° R.L. CED-STD	312	473	35	145					
8	T60997	109	TEE 4 CED-STD	292	458	36	147					
9	T60763	80	CODO 4 X 45° CED-STD	308	476	33	155					
10	T60763	100	CODO 4 X 90° R.L. CED-XS	337	479	35	156					
11	T59684	2	CODO 14 X 90° R.L. CED-XS	296	462	39	147					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T59968	59968	0.000	0.170	0.690	0.013	0.001	0.290	0.040	0.065	0.015	0.030	0.000	0.000
HF	T57395	57395	0.310	0.170	0.700	0.009	0.002	0.270	0.040	0.067	0.021	0.030	0.000	0.000
HF	T61225	61225	0.320	0.180	0.690	0.012	0.002	0.310	0.050	0.069	0.045	0.040	0.000	0.000
HF	T56078	56078	0.300	0.170	0.680	0.013	0.001	0.270	0.050	0.046	0.011	0.030	0.000	0.000
HF	T60764	60764	0.300	0.170	0.680	0.015	0.001	0.280	0.050	0.052	0.022	0.030	0.000	0.000
HF	T60997	60997	0.310	0.180	0.680	0.013	0.001	0.290	0.050	0.066	0.016	0.030	0.000	0.000
HF	T50962	50962	0.310	0.180	0.670	0.012	0.002	0.280	0.020	0.048	0.027	0.040	0.000	0.000
HF	T60997	60997	0.310	0.180	0.690	0.013	0.001	0.280	0.050	0.067	0.016	0.030	0.000	0.000
HF	T60763	60763	0.300	0.160	0.680	0.014	0.002	0.290	0.060	0.070	0.028	0.040	0.000	0.000
HF	T60763	60763	0.300	0.170	0.670	0.015	0.001	0.280	0.050	0.058	0.023	0.030	0.000	0.000
HF	T59684	59684	0.310	0.180	0.660	0.015	0.000	0.280	0.060	0.073	0.023	0.040	0.000	0.000

Certificamos que los resultados de los Analisis Químicos y Pruebas Mecánicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado B con N°:

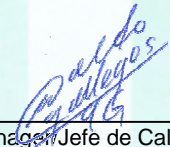
We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or supplier Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B N°:

12020221	11047253	12045985	11034435	12038071
12036578	10042609	12038886	12033866	12041138
12018753				

Este material cumple con los requerimientos especificados en la orden".

The material of this certificate heat number mentioned above is in compliance with the requirements specified in the order".

Notas:	Notes:
Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max.	Hot formed fittings in a range from 620°C to 980°C, cooled in still air, Cold formed normalized at 940°C max.
Tiempo de permanencia 10'.	Holding time 10'.
Inspección Dimensional: Satisfactoria.	Visual dimensional check: Satisfactory
HF: FORMADO EN CALIENTE/HOT FORMED	CF: FORMADO EN FRIO/COLD FORMED


Quality Manager / Jefe de Calidad:
ING. WALDO GALLEGOS GALVAN

The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting./ The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60.

Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60.

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