



**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474.3.1.B)

Tubos de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
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Vendido a: PLESA ANAHUAC Y CIA. S.A. DE C.V. Pedido del Cliente No: 4107
 Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V. Customers Order No: 4107
 Especificaciones y Grados / Standard or Specification and Steel Grade Dimensiones y tolerancias / Dimension and tolerances
 Seamless fittings according to ASTM A 234 "W", WPB-97, A234 "W", WPB-06a, NACE MR 01-76-2003 ASME B 16.9 - 2003 and ASME B 16.28 - 1994
 Conform to ASME II Ed. 2001 ASME SA-234 "W", Grade WPB. ASME B 16.9 - 2003 and ASME B 16.28 - 1994

Numero: Number:	19732	Página/Page:	1 DE 1
Lista de Empaque: Packing List:	10174	Fecha/Date:	7 de Febrero de 2008
Factura/Invoice:	Bocas / Ends		
	Biselado / Bevelled ends		

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C			
				ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HBW	1	2	3	PROMEDIO AVERAGE
12	T29889	10	CODO 14 X 90° R.L. CED-XS	298	474	39	91				
13	R71005	168	CODO 1 X 90° R.L. CED-STD	328	463	46	163				
14	T36431	15	CODO 8 X 90° R.C. CED-STD	304	476	36	92				
15	T35324	10	RED. CONC. 14 X 12 CED-XS	383	478	35	99				
16	T34198	4	TEE RED. 6 X 4 CED-XS	321	475	37	123				
17	T27741	6	TEE 16 CED-XS	350	500	48	123				
18	T29678	15	RED. CONC. 8 X 6 CED-XS	324	472	39	114				
19	T32973	15	RED. CONC. 8 X 6 CED-XS	299	466	37	135				
20	T37091	4	TEE RED. 6 X 3 CED-STD	392	514	36	101				
21	KV5	5	TEE RED. 4 X 3 CED-XS	313	469	48	156				
22	T29031	1	TEE 5 CED-STD	319	454	37	105				

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	T29889	29889	0.290	0.160	0.660	0.007	0.001	0.270	0.050	0.073	0.031	0.040	0.000	0.000
HF	R71005	71005	0.310	0.170	0.720	0.009	0.002	0.210	0.050	0.018	0.018	0.080	0.001	0.001
HF	T36431	36431	0.310	0.170	0.690	0.009	0.001	0.270	0.050	0.062	0.022	0.030	0.000	0.000
CF	T35324	35324	0.320	0.180	0.690	0.010	0.003	0.280	0.050	0.077	0.027	0.050	0.000	0.000
HF	T34198	34198	0.310	0.180	0.670	0.006	0.001	0.280	0.040	0.064	0.017	0.040	0.000	0.000
HF	T27741	27741	0.320	0.180	0.670	0.010	0.002	0.260	0.070	0.081	0.036	0.040	0.000	0.000
CF	T29678	29678	0.000	0.180	0.650	0.008	0.001	0.270	0.040	0.076	0.026	0.040	0.000	0.000
CF	T32973	32973	0.330	0.190	0.680	0.010	0.001	0.270	0.060	0.054	0.032	0.040	0.000	0.000
HF	T37091	37091	0.310	0.180	0.670	0.006	0.001	0.280	0.050	0.053	0.018	0.030	0.000	0.000
HF	KV5	20282	0.300	0.170	0.640	0.011	0.001	0.250	0.060	0.100	0.010	0.040	0.001	0.001
HF	T29031	29031	0.300	0.160	0.670	0.009	0.002	0.280	0.050	0.078	0.038	0.040	0.000	0.000

Notas: Formado en caliente a 820°C-980°C, enfriado al Hot formed fittings in a range from 820°C to 980°C, cooled in still air.
 Nota: Formado en frío normalizado a 940°C max. 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 FROJO/COLD FORMED

Jefe de Calidad:
Quality Manager:

ING. JOSE MARTINEZ MACIAS

CC-008

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.

Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tuberia 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°:
 6036140 2270324 7048261 7050521 7036258 6013894
 7011123 7037594 7055534 42230 6015176
 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.