

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

Número:	22339
Numero:	1 DE 1
Página/Page:	Carr. Mty-Tarado Km 24.2 Apartado Postal 43 (6550) C. de Flores, N.L. Méx. (52) 81 8305 9600 tel (52) 81 8305 9620 fax

Vendido a: PLESA ANAHUAC Y CIA. S.A. DE C.V.  
 Pedido del Cliente No: 5949 - 5952 - 5942 - 5931 - 6034  
 Lista de Empaque: 11353  
 Fecha/Date: 30 de Marzo de 2009

Dimensiones y tolerancias / Dimension and tolerances  
**ASME B 16.9 - 2007 and ASME B 16.28 - 1994**

Factura/Invoice: Bocas / Ends  
 Biselado / Bevelled ends

Especificaciones y Grados / Standard or Specification and Steel Grade  
 Seamless Fittings according to ASTM A 234M WPB-07, NACE MR 01.75-2003  
 Conform to ASME II Ed. 2001 ASME SA-234M Grade WPB, NACE MR0103-2003

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION		PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C			
ART. ITEM	COLADA HEAT CODE	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)
1	S31159	308	499	499	36	134	37	97	107
2	T37516	320	478	478	37	97	37	97	107
3	T41862	303	464	464	39	107	39	107	120
4	T43133	356	480	480	48	120	48	120	111
5	T40571	306	481	481	44	111	44	111	118
6	T42340	310	470	470	43	118	43	118	93
7	T36472	326	498	498	37	93	37	93	92
8	T38336	303	476	476	40	92	40	92	84
9	T31643	315	481	481	31	84	31	84	139
10	S37410	335	476	476	40	139	40	139	103
11	T22635	311	455	455	46	103	46	103	

ANALISIS QUIMICO / CHEMICAL ANALYSIS													
PROCESO COLADA	HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	S31159	0.340	0.200	0.760	0.014	0.001	0.270	0.040	0.046	0.010	0.014	0.001	0.001
HF	T37516	0.310	0.180	0.660	0.010	0.002	0.280	0.040	0.052	0.020	0.040	0.000	0.000
HF	T41862	0.300	0.180	0.650	0.009	0.002	0.300	0.040	0.043	0.014	0.020	0.000	0.000
HF	T43133	0.320	0.190	0.670	0.011	0.002	0.280	0.060	0.053	0.015	0.030	0.000	0.000
HF	T40571	0.300	0.170	0.690	0.009	0.004	0.280	0.040	0.057	0.009	0.030	0.000	0.000
CF	T42340	0.310	0.180	0.670	0.011	0.002	0.290	0.050	0.062	0.007	0.030	0.000	0.000
CF	T42340	0.320	0.170	0.660	0.008	0.001	0.250	0.050	0.062	0.028	0.030	0.000	0.000
HF	T36472	0.290	0.160	0.660	0.008	0.001	0.280	0.070	0.086	0.040	0.030	0.000	0.000
CF	T31643	0.330	0.180	0.730	0.009	0.002	0.280	0.070	0.086	0.040	0.030	0.000	0.000
CF	S37410	0.308	0.170	0.720	0.014	0.001	0.290	0.040	0.038	0.030	0.018	0.001	0.001
HF	T22635	0.310	0.170	0.680	0.008	0.000	0.270	0.050	0.070	0.044	0.030	0.000	0.000

Notes: Formado en caliente a 620°C-980°C, enfriado al Hot formed fittings in a range from 620°C to 980°C, cooled in still air.  
 Cold formed normalized at 940°C max.  
 Time of permanence 10'.  
 Visual dimensional check: Satisfactory.  
 Inspección Dimensional: Satisfactoria.  
 CF: FORMADO EN FRIO/COLD FORMED  
 HF: FORMADO EN CALIENTE/HOT FORMED

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.  
 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.

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.

8034710 6042867 257541 5013270  
 459616 8007254 9011964 9012581 8039770 8063658 8034710

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°.

verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor.  
 Certificamos que los resultados de los Analisis Químicos y Pruebas Mecánicas son

ING. WALDO GALLEGOS GALVAN  
 Quality Manager/gerente de Calidad

CC-008