

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

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Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	5931 - 5952 - 5942 - 5949 - 5950	Lista de Empaque: Packing List:	11321	Fecha/Date:	4 de Marzo de 2009
Especificaciones y Grados / Standard or Specification and Steel Grade	Seamless Fittings according to ASTM A 234M WPB-07, NACE MR 01.75-2003	Dimensiones y tolerancias / Dimension and tolerances		Factura/Invoice: Bocas / Ends Biselado / Bevelled ends			
Conform to ASME II Ed. 2001 ASME SA-234M Grade WPB, NACE MR0103-2003	ASME B 16.9 - 2007 and ASME B 16.28 - 1994						

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
12	T42086	5	CODO 8 X 45° CED-STD	270	434	36	129					
13	T42417	9	CODO 8 X 45° CED-STD	307	461	34	103					
14	T42773	60	CODO 8 X 90° R.L. CED-STD	365	494	34	106					
15	S20537	9	CODO 5 X 45° CED-STD	297	470	40	102					
16	S22096	16	CODO 5 X 45° CED-STD	336	494	37	106					
17	T41761	9	CODO 16 X 90° R.L. CED-STD	315	476	37	112					
18	S31050	40	CODO 1 1/4 X 90° R.L. CED-STD	367	534	32	130					
19	T40516	15	RED. CONC. 10 X 6 CED-STD	320	490	31	108					
20	T39736	4	TEE 10 CED-STD	302	466	38	109					
21	T34460	1	TEE 10 CED-STD	310	480	41	88					
22	T38336	1	TEE 10 CED-STD	240	461	37	98					

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	T42086	42086	0.300	0.170	0.670	0.009	0.001	0.280	0.050	0.064	0.011	0.030	0.000	0.000
HF	T42417	42417	0.290	0.160	0.670	0.012	0.001	0.280	0.040	0.046	0.018	0.030	0.000	0.000
HF	T42773	42773	0.310	0.180	0.670	0.016	0.001	0.260	0.040	0.071	0.023	0.030	0.000	0.000
HF	S20537	20537	0.340	0.190	0.790	0.012	0.002	0.290	0.040	0.035	0.010	0.021	0.001	0.001
HF	S22096	22096	0.320	0.180	0.780	0.008	0.001	0.300	0.040	0.022	0.010	0.019	0.001	0.001
HF	T41761	41761	0.300	0.170	0.680	0.011	0.001	0.280	0.040	0.035	0.007	0.020	0.000	0.000
HF	S31050	31050	0.330	0.190	0.760	0.007	0.002	0.270	0.030	0.023	0.010	0.013	0.001	0.000
CF	T40516	40516	0.290	0.160	0.680	0.009	0.001	0.270	0.050	0.065	0.008	0.030	0.000	0.000
HF	T39736	39736	0.300	0.170	0.680	0.009	0.001	0.270	0.040	0.049	0.011	0.020	0.000	0.000
HF	T34460	34460	0.340	0.180	0.770	0.008	0.003	0.270	0.060	0.097	0.038	0.040	0.000	0.000
HF	T38336	38336	0.290	0.160	0.650	0.008	0.001	0.250	0.050	0.067	0.012	0.030	0.000	0.000

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°: 8058416 8066837 9002848 361142 376862 8068640 479680 8039769 8041470 7023435 8023202

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°: 8058416 8066837 9002848 361142 376862 8068640 479680 8039769 8041470 7023435 8023202

"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:	Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max.	Notes:	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

Waldo Gallegos
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.