

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE

(DIN EN 10204:2004E - ISO 10474 3.1.B)

Vendido a: PLESA ANAHUAC Y CIA. S. A. DE C. V.
 Sold to: PLESA ANAHUAC Y CIA. S. A. DE C. V.
 Especificaciones y Grados / Standard or Specification and Steel Grade
 Seamless Fittings according to ASTM A 234 "M" WPB-97, A234 "M" WPB-06a, NACE MR 01.75-2003
 Conform to ASME II Ed. 2001 ASME SA-234 "M", Grade WPB.
 Pedido del Cliente No: 3825
 Customers Order No: 3825
 Dimensiones y tolerancias / Dimension and tolerances
ASME B 16.9 - 2003 and ASME B 16.28 - 1994
 Numero: 19380
 Number: 19380
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 Fecha/Date: 13 de Diciembre de 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	T33901	3	CODO 8 X 45° CED-XS	291	492	42	92					
2	T33357	1	CODO 8 X 45° CED-XS	292	480	42	122					
3	T34259	2	CODO 8 X 45° CED-XS	319	469	40	90					
4	T31916	5	CODO 8 X 45° CED-XS	318	474	34	90					
5	T34260	3	CODO 8 X 45° CED-XS	300	473	43	112					
6	T35302	1	CODO 8 X 45° CED-XS	300	476	41	87					
7	T35714	36	CODO 8 X 45° CED-XS	334	492	31	89					
8	T34691	4	CODO 8 X 45° CED-XS	297	492	42	84					
9	T34690	5	CODO 8 X 45° CED-XS	323	492	41	87					
10	S21394	200	CODO 2 X 90° R. L. CED-STD	302	472	28	133					
11	T37091	40	CODO 10 X 90° R. L. CED-STD	315	485	40	96					

ANALISIS QUIMICO / CHEMICAL ANALYSIS

PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T33901	33901	0.350	0.180	0.011	0.001	0.300	0.060	0.065	0.037	0.040	0.000	0.000
HF	T33357	33357	0.300	0.170	0.010	0.002	0.270	0.050	0.063	0.019	0.030	0.000	0.000
HF	T34259	34259	0.310	0.170	0.009	0.001	0.290	0.060	0.066	0.038	0.040	0.000	0.000
HF	T31916	31916	0.320	0.180	0.008	0.002	0.290	0.050	0.059	0.027	0.040	0.000	0.000
HF	T34260	34260	0.310	0.170	0.009	0.001	0.290	0.060	0.066	0.039	0.040	0.000	0.000
HF	T35302	35302	0.320	0.180	0.008	0.001	0.260	0.050	0.082	0.026	0.040	0.000	0.000
HF	T35714	35714	0.350	0.180	0.011	0.001	0.300	0.060	0.064	0.037	0.040	0.000	0.000
HF	T34691	34691	0.330	0.190	0.008	0.002	0.270	0.070	0.074	0.049	0.030	0.000	0.000
HF	T34690	34690	0.350	0.180	0.011	0.001	0.300	0.060	0.065	0.037	0.040	0.000	0.000
HF	S21394	21394	0.310	0.180	0.011	0.001	0.260	0.030	0.035	0.010	0.021	0.001	0.001
HF	T37091	37091	0.310	0.180	0.006	0.001	0.280	0.050	0.053	0.018	0.030	0.000	0.000

Notas:
 Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max.
 Tiempo de permanencia 10'.
 Inspección Dimensional: Satisfactoria.
 HF: FORMADO EN CALIENTE/HOT FORMED

Notas:
 Hot formed fittings in a range from 620°C to 980°C, cooled in still air.
 Cold formed normalized at 940°C max.
 Holding time 10'.
 Visual dimensional check: Satisfactory.
 CF: FORMADO EN FRIJO/COLD FORMED

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 (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°. 7044083 7020179 7025787 7001852 7025787 7043952 7044083 7043952 371740 7054767

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.

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.

Jefe de Calidad:
 Quality Manager:

 ING. JOSE MARTINEZ MACIAS

CC-008