

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

Numero: 21723
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Vendido a: PLESA ANAHUAC Y CIA. S.A. DE C.V.
Pedido del Cliente No: 5406 - 5307 -
Lista de Empaque: 11091
Fecha/Date: 2 de Diciembre de 2008

Dimensiones y tolerancias / Dimension and tolerances

Especificaciones y Grados / Standard or Specification and Steel Grade

Conform to ASME II Ed. 2001 ASME SA-234" M", Grade WPB, NACE MR0103-2003
Seamless Fittings according to ASTM A 234" M", WPB-07, A234" M", WPB-05a, NACE MR 01.75-2003

ASME B 16.9 - 2007 and ASME B 16.28 - 1994

Biselado / Bevelled ends

Factura/Invoice:
Bocas / 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 AVERAGE Joules
1	T41224	55	TEE 4 CED-STD	297	481	39	124				
2	T40042	16	TEE RED. 10 X 6 CED-STD	254	467	35	109				
3	T38541	1	CODO 14 X 90° R.I. CED-40	243	438	36	100				

ANALISIS QUIMICO / CHEMICAL ANALYSIS

PROCESO COLADA HEAT CODE	COLADA HEAT CODE	M.P./OTHER PIPE	%C.E.	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T41224	41224	0.300	0.170	0.660	0.013	0.002	0.280	0.050	0.057	0.016	0.030	0.000	0.000
HF	T40042	40042	0.310	0.180	0.670	0.012	0.001	0.270	0.040	0.052	0.006	0.020	0.000	0.000
HF	T38541	38541	0.300	0.170	0.660	0.006	0.001	0.280	0.060	0.063	0.014	0.040	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 (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°. 8050483 8040331 8023138

"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. 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.

Quality Management de Calidad:

ING. WALDO GALLEGOS GALVAN

Notes: 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

HF: FORMADO EN CALIENTE/HOT FORMED
CF: FORMADO EN FRIO/COLD FORMED

Inspeccion Dimensional: Satisfactoria.

Tiempo de permanencia 10'.

Aire: Formado en frio normalizado a 940°C max.

Hot formed fittings in a range from 620°C to 980°C, cooled in still air.