

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

Numero:  
Number: 27223

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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 13506 - 14833 - 14336	Lista de Empaque: Packing List: 14113	Fecha/Date: 22 de Marzo de 2013
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-07, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB, NACE MR0103-2003	Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 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	T5590	447	CODO 3 X 90° R.L. CED-STD	316	492	30	161					
2	T5011	345	CODO 3 X 90° R.L. CED-STD	346	499	32	154					
3	T5583	100	CODO 6 X 90° R.L. CED-STD.	291	479	34	138					
4	T5463	100	CODO 6 X 90° R.L. CED-STD.	265	494	35	149					
5	T62433	20	TEE 8 CED-STD	258	460	38	142					
6	T5465	18	TEE 4 CED-STD	276	458	37	142					
7	T5294	92	TEE 4 CED-STD	309	471	36	141					
8	T5463	6	CODO 6 X 45° CED-STD	265	494	35	149					
9	T5294	7	CODO 6 X 45° CED-STD	311	474	34	139					
10	T5584	64	CODO 6 X 45° CED-STD	307	489	32	144					
11	T5008	1	CODO 6 X 45° CED-STD	315	494	32	144					

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	T5590	5590	0.330	0.180	0.820	0.005	0.001	0.310	0.020	0.028	0.008	0.020	0.000	0.000
HF	T5011	5011	0.330	0.190	0.810	0.003	0.001	0.320	0.020	0.036	0.005	0.020	0.000	0.000
HF	T5583	5583	0.300	0.160	0.770	0.005	0.001	0.320	0.040	0.041	0.008	0.020	0.000	0.000
HF	T5463	5463	0.310	0.170	0.810	0.007	0.001	0.300	0.020	0.040	0.008	0.020	0.000	0.000
HF	T62433	62433	0.310	0.170	0.690	0.015	0.001	0.300	0.050	0.054	0.023	0.030	0.000	0.000
HF	T5465	5465	0.330	0.180	0.820	0.007	0.002	0.310	0.020	0.043	0.010	0.020	0.000	0.000
HF	T5294	5294	0.310	0.170	0.770	0.006	0.001	0.320	0.020	0.023	0.006	0.020	0.000	0.000
HF	T5463	5463	0.310	0.170	0.810	0.007	0.001	0.300	0.020	0.040	0.008	0.020	0.000	0.000
HF	T5294	5294	0.310	0.170	0.770	0.006	0.001	0.310	0.020	0.024	0.007	0.020	0.000	0.000
HF	T5584	5584	0.300	0.160	0.770	0.004	0.001	0.300	0.020	0.034	0.007	0.020	0.000	0.000
HF	T5008	5008	0.320	0.180	0.780	0.005	0.001	0.310	0.020	0.033	0.005	0.020	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°: 13013194 12072050 13006470 13000608 12081105 13002091 12080803 13000608 12081784 13006479 12070980

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°:

"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 frio normalizado a 940°C max.  
Tiempo de permanencia 10'.  
Inspección Dimensional: Satisfactoria.

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

**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.