



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

Numero:
Number:

25849

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Tabbs de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
(65550) C. de Flores, N.L. Méx.
(52) 81 8305 9600 tel
(52) 81 8305 9620 fax

Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	12701 - 12885	Lista de Empaque: Packing List:	13379	Fecha/Date:	28 de Mayo de 2012
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	PRQMEDIO AVERAGE Joules
1	T60551	20	CODO 8 X 45° CED-STD	326	484	36	143					
2	T60105	40	CODO 10 X 45° CED-STD	289	489	37	151					
3	T59630	2	CODO 16 X 90° R.L. CED-STD	253	471	39	138					
4	T56000	1	CODO 16 X 90° R.L. CED-STD	316	472	36	141					
5	T55633	6	CODO 16 X 90° R.L. CED-STD	296	472	39	141					
6	T59630	20	RED. CONC. 12 X 10 CED-STD	307	461	37	144					
7	T56126	2	CODO 12 X 90° R.L. CED-40	321	476	35	118					
8	T46857	3	CODO 12 X 90° R.L. CED-40	331	497	43	122					
9	T48110	1	CODO 12 X 90° R.L. CED-40	324	468	37	143					
10	T59566	6	CODO 10 X 90° R.L. CED-80	295	471	42	83					
11	S49296	42	CODO 1 1/2 X 90° R.C. CED-STD	357	511	51	130					

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	T60551	60551	0.310	0.170	0.660	0.016	0.001	0.300	0.060	0.075	0.031	0.040	0.000	0.000
HF	T60105	60105	0.310	0.180	0.670	0.015	0.001	0.290	0.050	0.080	0.014	0.030	0.000	0.000
HF	T59630	59630	0.330	0.190	0.690	0.010	0.001	0.270	0.050	0.058	0.023	0.040	0.000	0.000
HF	T56000	56000	0.320	0.180	0.710	0.011	0.001	0.290	0.040	0.071	0.020	0.030	0.000	0.000
HF	T55633	55633	0.320	0.180	0.690	0.010	0.002	0.270	0.060	0.065	0.025	0.040	0.000	0.000
CF	T59630	59630	0.320	0.190	0.680	0.009	0.001	0.280	0.050	0.061	0.024	0.040	0.000	0.000
HF	T56126	56126	0.300	0.170	0.680	0.010	0.002	0.270	0.050	0.059	0.017	0.030	0.000	0.000
HF	T46857	46857	0.310	0.180	0.660	0.010	0.002	0.300	0.040	0.079	0.029	0.040	0.000	0.000
HF	T48110	48110	0.310	0.180	0.670	0.010	0.003	0.290	0.030	0.077	0.023	0.030	0.000	0.000
HF	T59566	59566	0.320	0.190	0.650	0.012	0.002	0.280	0.040	0.071	0.023	0.030	0.000	0.000
HF	S49296	49296	0.320	0.180	0.750	0.009	0.002	0.280	0.040	0.029	0.020	0.054	0.001	0.002

Certificamos que los resultados de los Análisis Químicos y Pruebas Mecánicas 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°:
12030081 12027519 12026132 11033963 11039229 12018607
11035788 11052253 11052253 12023604 11061966
"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.
Tiempo de permanencia 10'.
Inspección Dimensional: Satisfactoria.
HF: FORMADO EN CALIENTE/HOT FORMED

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
CF: FORMADO EN FRIO/COLD FORMED

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.