



Acero de Acero de México, S.A.  
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<b>CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE</b> (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number:	Pagina/Page:
		24602	1

Vendido a: Sold to:	PROVEEDORA DE MATERIALES ANCER, S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	5996 - 5960 -	Lista de Empaque: Packing List:	12681	Fecha/Date:	20 de Mayo de 2011
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 and ASME B 16.28 - 1994			Factura/Invoice: Bocas / Ends: Biselado / Bevelled ends		

DESCRIPCIÓN 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	S42140	766	CODO 3 X 90° R.L. CED-STD	327	494	32	116					
2	S42141	90	CODO 3 X 90° R.L. CED-STD	348	526	31	124					
3	S44010	200	CODO 3 X 90° R.L. CED-STD	326	483	34	124					
4	T50768	12	CODO 16 X 90° R.L. CED-XS	315	480	44	122					
5	T52308	6	RED. CONC. 6 X 5 CED-STD	315	484	42	122					
6	T37515	10	RED. CONC. 14 X 12 CED-STD	308	476	34	99					
7	T49654	18	TEE RED. 6 X 4 CED-STD	312	492	44	106					
8	T49869	19	TEE RED. 6 X 4 CED-STD	301	481	41	116					

ANÁLISIS QUÍMICO / 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	S42140	42140	0.330	0.190	0.750	0.009	0.001	0.290	0.030	0.019	0.010	0.011	0.002	0.002
HF	S42141	42141	0.340	0.190	0.900	0.010	0.001	0.330	0.030	0.040	0.010	0.028	0.002	0.002
HF	S44010	44010	0.320	0.180	0.740	0.011	0.001	0.300	0.040	0.030	0.010	0.022	0.002	0.002
HF	T50768	50768	0.310	0.180	0.660	0.012	0.001	0.280	0.050	0.044	0.018	0.020	0.000	0.000
CF	T52308	52308	0.310	0.180	0.690	0.012	0.001	0.280	0.030	0.063	0.023	0.038	0.000	0.000
CF	T37515	37515	0.360	0.170	0.650	0.011	0.003	0.290	0.050	0.080	0.045	0.030	0.000	0.000
HF	T49654	49654	0.310	0.180	0.660	0.014	0.002	0.280	0.030	0.064	0.025	0.030	0.000	0.000
HF	T49869	49869	0.300	0.180	0.660	0.014	0.002	0.270	0.020	0.065	0.020	0.030	0.000	0.000

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 al 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°:  
 11007340 10057995 11008313 10060055 11012164  
 11013916 10028873 10032912

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.

<b>Notas:</b> 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	<b>Notas:</b> 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 FRÍO/COLD FORMED	 <b>Quality Manager / Jefe de Calidad:</b> <b>ING. WALDO GALLEGOS GALVAN</b>
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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.

CC-008