

<b>CERTIFICADO DE CALIDAD</b> <b>INSPECTION CERTIFICATE</b> ( DIN EN 10204:2004E - ISO 10474 3.1.B )	Numero: Number:	Pagina/Page:
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Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	11177 - 11570 - 11428 - 11409	Lista de Empaque: Packing List:	12975	Fecha/Date:	23 de Noviembre 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	Dimensiones y tolerancias / Dimension and tolerances				Factura/Invoice:	
Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB, NACE MR0103-2003		ASME B 16.9 - 2007 and ASME B 16.28 - 1994				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	T50878	2	CODO 3 X 90° R.L. CED-STD	357	503	35	122					
2	S42831	98	CODO 3 X 90° R.L. CED-STD	338	508	32	122					
3	T50879	100	CODO 3 X 90° R.L. CED-STD	353	498	35	122					
4	S46665	27	CODO 4 X 45° CED-STD	305	481	30	140					
5	S42774	23	CODO 4 X 45° CED-STD	325	505	33	140					
6	S46244	200	CODO 2 X 45° CED-STD	281	475	30	107					
7	S25836	10	CODO 5 X 90° R.C. CED-STD	303	477	34	142					
8	T51012	1	RED. CONC. 16 X 12 CED-STD	372	513	44	128					
9	T56641	20	RED. CONC. 6 X 3 CED-STD	306	484	39	118					
10	S46666	10	RED. CONC. 4 X 2 CED-STD	301	472	34	145					
11	S45279	3	CODO 3 X 45° CED-XS	264	462	36	105					

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	T50878	50878	0.300	0.180	0.650	0.014	0.001	0.290	0.040	0.050	0.014	0.030	0.000	0.000
HF	S42831	42831	0.330	0.190	0.800	0.012	0.002	0.320	0.020	0.014	0.010	0.009	0.001	0.002
HF	T50879	50879	0.310	0.180	0.660	0.014	0.001	0.300	0.040	0.048	0.013	0.030	0.000	0.000
HF	S46665	46665	0.340	0.200	0.740	0.009	0.001	0.290	0.050	0.053	0.010	0.025	0.001	0.002
HF	S42774	42774	0.320	0.180	0.750	0.012	0.002	0.300	0.040	0.024	0.010	0.015	0.002	0.002
HF	S46244	46244	0.330	0.190	0.740	0.012	0.000	0.290	0.050	0.035	0.020	0.020	0.002	0.002
HF	S25836	25836	0.330	0.190	0.750	0.010	0.002	0.300	0.030	0.035	0.010	0.019	0.001	0.001
CF	T51012	51012	0.310	0.180	0.660	0.012	0.002	0.270	0.050	0.080	0.032	0.040	0.000	0.000
CF	T56641	56641	0.300	0.170	0.670	0.011	0.000	0.270	0.040	0.053	0.014	0.030	0.000	0.000
CF	S46666	46666	0.320	0.180	0.750	0.007	0.002	0.280	0.050	0.038	0.020	0.020	0.001	0.002
HF	S45279	45279	0.320	0.180	0.740	0.010	0.001	0.300	0.050	0.055	0.020	0.048	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°:

10055648 11001308 10055648 11039684 10058145 598998  
420064 11024526 11044294 11042715 7011277

"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:	Notes:
Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max.	Hot formed fittings in a range from 620°C to 980°C, cooled in still air. Cold formed normalized at 940°C max
Tiempo de permanencia 10'.	Holding time 10'.
Inspección Dimensional: Satisfactoria.	Visual dimensional check: Satisfactory
HF: FORMADO EN CALIENTE/HOT FORMED	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