

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (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:	13996 - 13591	Lista de Empaque: Packing List:	13835	Fecha/Date:	5 de Diciembre de 2012
Especificaciones y Grados / Standard or Specification and Steel Grade	Dimensiones y tolerancias / Dimension and tolerances			Factura/Invoice:			
Seamless Fittings according to ASTM A 234 WPB-07, NACE MR 01.75-2003	ASME B 16.9 - 2007			Bocas / Ends			
Conform to ASME II Ed. 2001 ASME SA-234, Grade WPB, NACE MR0103-2003				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	T5013	350	CODO 4 X 90° R.L. CED-STD	329	497	32	141					
2	T4888	228	CODO 4 X 90° R.L. CED-STD	334	494	38	142					
3	T5008	106	CODO 4 X 90° R.L. CED-STD	334	494	38	147					
4	T55441	78	CODO 3 X 90° R.L. CED-STD	349	491	40	124					
5	T61225	226	CODO 3 X 90° R.L. CED-STD	346	501	37	152					
6	S48017	1	CODO 3 X 90° R.L. CED-STD	334	508	30	104					
7	T4465	33	CODO 3 X 90° R.L. CED-STD	380	504	30	148					
8	T5006	47	CODO 6 X 90° R.L. CED-STD.	320	481	31	156					
9	T5013	77	CODO 6 X 90° R.L. CED-STD.	340	509	38	77					
10	T5009	76	CODO 6 X 90° R.L. CED-STD.	312	491	35	146					
11	T5012	68	CODO 2 1/2 X 90° R.L. CED-STD	360	514	36	164					

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	T5013	5013	0.310	0.170	0.810	0.004	0.002	0.320	0.020	0.039	0.007	0.020	0.000	0.000
HF	T4888	4888	0.300	0.160	0.780	0.005	0.001	0.320	0.010	0.021	0.005	0.010	0.000	0.000
HF	T5008	5008	0.320	0.180	0.790	0.006	0.001	0.320	0.020	0.033	0.006	0.020	0.000	0.000
HF	T55441	55441	0.330	0.190	0.700	0.011	0.002	0.300	0.070	0.059	0.018	0.030	0.000	0.000
HF	T61225	61225	0.320	0.180	0.680	0.012	0.002	0.320	0.050	0.070	0.044	0.040	0.000	0.000
HF	S48017	48017	0.330	0.180	0.770	0.010	0.001	0.300	0.050	0.032	0.020	0.019	0.002	0.002
HF	T4465	4465	0.340	0.190	0.830	0.006	0.001	0.340	0.010	0.038	0.006	0.020	0.000	0.000
HF	T5006	5006	0.310	0.170	0.800	0.005	0.002	0.310	0.010	0.038	0.004	0.020	0.000	0.000
HF	T5013	5013	0.320	0.180	0.800	0.003	0.001	0.310	0.010	0.036	0.007	0.020	0.000	0.000
HF	T5009	5009	0.320	0.180	0.800	0.003	0.001	0.320	0.010	0.032	0.004	0.020	0.000	0.000
HF	T5012	5012	0.330	0.190	0.820	0.003	0.000	0.310	0.010	0.036	0.005	0.020	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 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°:

12071871 12073471 12073471 12052102 12054172
11058327 12052103 12071298 12076567 12065768
12068280

"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:	Notas:
Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max. Tiempo de permanencia 10'.	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'.
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.