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

Número:
Number:

22980

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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 7314 - 7299 - 7301	Lista de Empaque: Packing List: 11724	Fecha/Date: 20 de Noviembre de 2009
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234M WPB-07, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234M 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

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	S33942	114	CODO 4 X 90° R.L. CED-STD	317	484	32	140					
2	S31625	132	CODO 3 X 90° R.L. CED-STD	331	510	32	124					
3	S31625	25	CODO 3 X 45° CED-STD	331	510	32	124					
4	S31052	20	CODO 2 X 90° R.L. CED-XS	326	495	31	120					
5	S31681	140	CODO 2 X 90° R.L. CED-STD	327	493	31	118					
6	T41977	3	CODO 14 X 45° CED-STD	338	494	34	103					
7	S32307	34	CODO 2 1/2 X 90° R.L. CED-STD	314	486	31	122					
8	S32624	12	CODO 2 1/2 X 45° CED-STD	321	495	30	120					
9	R71005	63	CODO 1 X 90° R.L. CED-STD	329	462	46	110					
10	T45656	21	CODO 1 X 90° R.L. CED-STD	304	449	50	135					
11	S31050	40	CODO 1 1/4 X 90° R.L. CED-STD	367	534	32	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	S33942	33942	0.320	0.180	0.730	0.014	0.001	0.290	0.040	0.069	0.010	0.032	0.001	0.000
HF	S31625	31625	0.310	0.170	0.750	0.012	0.002	0.260	0.040	0.034	0.010	0.016	0.001	0.001
HF	S31625	31625	0.310	0.170	0.750	0.012	0.002	0.260	0.040	0.034	0.010	0.016	0.001	0.001
HF	S31052	31052	0.330	0.190	0.740	0.010	0.001	0.260	0.040	0.056	0.010	0.020	0.001	0.001
HF	S31681	31681	0.320	0.190	0.720	0.008	0.001	0.260	0.030	0.018	0.010	0.017	0.001	0.002
HF	T41977	41977	0.290	0.170	0.650	0.011	0.002	0.260	0.040	0.049	0.012	0.030	0.000	0.000
HF	S32307	32307	0.330	0.190	0.710	0.012	0.002	0.260	0.050	0.039	0.010	0.028	0.001	0.001
HF	S32624	32624	0.340	0.200	0.750	0.011	0.002	0.280	0.040	0.041	0.010	0.031	0.001	0.002
HF	R71005	71005	0.310	0.170	0.720	0.009	0.002	0.210	0.050	0.018	0.018	0.080	0.001	0.001
HF	T45656	45656	0.300	0.180	0.650	0.007	0.002	0.250	0.040	0.043	0.020	0.000	0.000	0.000
HF	S31050	31050	0.330	0.190	0.760	0.007	0.002	0.270	0.030	0.023	0.010	0.013	0.001	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°: 480575 460632 460632 458096 479030 9007779 468319 470646 2270324 6206 479680

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°: 480575 460632 460632 458096 479030 9007779 468319 470646 2270324 6206 479680

"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. 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.
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