

E-A - 95794

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

Numero:
Number: 30659
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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 24475	Lista de Empaque: Packing List: 16047	Fecha/Date: 22 de diciembre de 2016
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-13e Conform to ASME II Ed. 2013 ASME SA-234, Grade WPB	Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2012		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	T8766	228	CODO 4 X 90° R.L. CED-STD	327	491	39	157					
2	T80563	264	CODO 3 X 90° R.L. CED-STD	349	502	40	146					
3	T80490	6	CODO 14 X 90° R.L. CED-STD	316	485	43	141					
4	T69401	2	TEE 8 CED-XS	278	471	40	152					
5	T76221	6	TEE 8 CED-XS	262	418	39	129					
6	S41566	48	CODO 2 X 45° CED-STD	316	496	37	120					
7	T79785	1	CODO 12 X 90° R.L. CED-STD	325	492	44	144					
8	T80908	17	CODO 12 X 90° R.L. CED-STD	312	489	42	137					
9	T77562	12	TEE 10 CED-XS	297	444	35	127					
10	T6969	20	CODO 5 X 45° CED-STD	337	471	30	152					
11	T72421	8	CODO 12 X 90° R.L. CED-XS	329	487	30	144					

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	T8766	8766	0.310	0.190	0.690	0.012	0.002	0.270	0.020	0.037	0.006	0.020	0.000	0.000
HF	T80563	80563	0.330	0.190	0.680	0.008	0.001	0.280	0.060	0.057	0.020	0.030	0.000	0.000
HF	T80490	80490	0.310	0.180	0.700	0.006	0.002	0.260	0.030	0.067	0.022	0.030	0.000	0.000
HF	T69401	69401	0.320	0.170	0.740	0.009	0.001	0.260	0.060	0.066	0.025	0.040	0.000	0.000
HF	T76221	76221	0.300	0.160	0.670	0.006	0.002	0.260	0.060	0.066	0.027	0.040	0.000	0.000
HF	S41566	41566	0.320	0.190	0.730	0.011	0.002	0.260	0.050	0.030	0.010	0.020	0.002	0.001
HF	T79785	79785	0.330	0.180	0.750	0.007	0.002	0.260	0.050	0.050	0.025	0.030	0.000	0.000
HF	T80908	80908	0.320	0.180	0.710	0.007	0.002	0.290	0.060	0.060	0.023	0.030	0.000	0.000
HF	T77562	77562	0.310	0.180	0.690	0.005	0.002	0.280	0.030	0.055	0.017	0.030	0.000	0.000
HF	T6969	6969	0.320	0.190	0.710	0.005	0.001	0.300	0.020	0.041	0.007	0.020	0.000	0.000
HF	T72421	72421	0.330	0.190	0.690	0.005	0.001	0.280	0.070	0.072	0.014	0.050	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°:
15019101 16006591 16005518 14002618 15010686 16019890 16000059 16010958 15024047 15001751 14036150
"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. ALFONSO ORTEGA GARCIA

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.
MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1, 2009 AND NACE MR0103, 2012 ONLY HARDNESS