

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

Numero:
Number:
30588

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Vendido a:
Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.

Pedido del Cliente No:
Customers Order No: 24390

Lista de Empaque:
Packing List: 16006

Fecha/Date:
27 de octubre 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
12	T80753	45	CODO 4 X 90° R.L. CED-XS	338	492	40	143					
13	T83533	9	CODO 16 X 90° R.L. CED-STD	332	500	44	142					
14	T65548	3	CODO 16 X 45° CED-XS	259	460	37	148					
15	T62499	1	CODO 16 X 45° CED-XS	268	470	38	127					
16	T60438	2	CODO 16 X 45° CED-XS	260	469	36	143					
17	T64199	1	CODO 16 X 45° CED-XS	272	484	41	145					
18	T69819	5	CODO 16 X 45° CED-XS	276	472	38	141					
19	T8431	1	CODO 4 X 90° R.C. CED-XS	269	482	33	151					
20	T79129	19	CODO 4 X 90° R.C. CED-XS	325	486	43	148					
21	T79925	5	RED. CONC. 16 X 14 CED-STD	343	502	43	134					
22	T79925	36	TEE 10 CED-STD	323	492	45	134					

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	T80753	80753	0.320	0.170	0.740	0.007	0.002	0.280	0.050	0.080	0.022	0.040	0.000	0.000
HF	T83533	83533	0.310	0.170	0.710	0.010	0.001	0.290	0.060	0.076	0.033	0.030	0.000	0.000
HF	T65548	65548	0.310	0.180	0.680	0.013	0.001	0.280	0.040	0.058	0.011	0.030	0.000	0.000
HF	T62499	62499	0.310	0.180	0.670	0.014	0.001	0.270	0.050	0.077	0.026	0.040	0.000	0.000
HF	T60438	60438	0.320	0.180	0.720	0.016	0.000	0.260	0.060	0.057	0.026	0.030	0.000	0.000
HF	T64199	64199	0.310	0.180	0.670	0.010	0.001	0.290	0.050	0.058	0.019	0.030	0.000	0.000
HF	T69819	69819	0.310	0.180	0.680	0.007	0.000	0.270	0.060	0.056	0.013	0.030	0.000	0.000
HF	T8431	8431	0.310	0.180	0.700	0.007	0.002	0.290	0.030	0.015	0.007	0.010	0.000	0.000
HF	T79129	79129	0.300	0.170	0.680	0.007	0.001	0.270	0.040	0.057	0.030	0.030	0.000	0.000
CF	T79925	79925	0.310	0.180	0.690	0.006	0.001	0.280	0.040	0.069	0.021	0.030	0.000	0.000
HF	T79925	79925	0.320	0.180	0.710	0.006	0.002	0.270	0.006	0.069	0.027	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 el proveedor de Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado B con N°: 16011780 16028897 13046811 12084571 12027565 13015873 14008037 14049617 15043616 16005020 16005965

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°: 16011780 16028897 13046811 12084571 12027565 13015873 14008037 14049617 15043616 16005020 16005965

"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