

**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474: 2013 3.1.B)

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Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	27931 - 28616 - 27241 -	Lista de Empaque: Packing List:	18240	Fecha/Date:	1 de julio de 2019
Especificaciones y Grados / Standard or Specification and Steel Grade	Seamless Fittings according to ASTM A 234 WPB-18e Conform to ASME II Ed. 2017, ASME SA-234 Grade WPB			Dimensiones y tolerancias / Dimension and tolerances	Factura/Invoice: Bocas / Ends Biselado / Bevelled ends		
				ASME B 16.9 - 2018			

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	T98481	47	CODO 6 X 90° R.C. CED-STD	266	455	36	154					
2	T96569	10	CODO 6 X 90° R.C. CED-STD	376	498	33	128					
3	T96573	3	CODO 6 X 90° R.C. CED-STD	241	426	34	134					
4	S44314	50	CODO 2 X 45° CED-STD	336	496	30	130					
5	T96380	10	CODO 12 X 45° CED-40	275	415	38	134					
6	T95484	6	RED. CONC. 12 X 8 CED-STD	274	415	37	127					
7	T96509	8	RED. CONC. 12 X 8 CED-80	311	487	38	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	T98481	98481	0.310	0.180	0.660	0.006	0.002	0.250	0.050	0.070	0.020	0.030	0.003	0.000
HF	T96569	96569	0.310	0.170	0.680	0.012	0.002	0.260	0.060	0.070	0.031	0.030	0.002	0.000
HF	T96573	96573	0.310	0.180	0.660	0.010	0.002	0.270	0.060	0.054	0.029	0.030	0.002	0.000
HF	S44314	44314	0.350	0.200	0.760	0.010	0.002	0.300	0.050	0.050	0.030	0.029	0.002	0.000
HF	T96380	96380	0.300	0.170	0.680	0.011	0.002	0.280	0.050	0.067	0.025	0.050	0.001	0.000
CF	T95484	95484	0.300	0.170	0.670	0.007	0.002	0.290	0.040	0.060	0.030	0.030	0.001	0.000
CF	T96509	96509	0.320	0.180	0.740	0.012	0.003	0.280	0.050	0.060	0.020	0.030	0.002	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°: 19014716 18069764 18069764 17048941 18064078 19009284 19010958

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°: 19014716 18069764 18069764 17048941 18064078 19009284 19010958

"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, 2015 AND NACE MR0103,2015 ONLY HARDNESS
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