

**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:	28909 - 28216 -	Lista de Empaque: Packing List:	18445	Fecha/Date:	2 de diciembre de 2019
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-18e	ASME B 16.9 - 2018			Bocas / Ends			
Conform to ASME II Ed. 2019, ASME SA-234 Grade WPB				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	T98480	11	CODO 3 X 90° R.L. CED-STD	354	492	36	146					
2	T96571	72	CODO 3 X 90° R.L. CED-STD	360	502	36	142					
3	T98481	41	CODO 3 X 90° R.L. CED-STD	348	503	37	120					
4	T13588	140	CODO 3 X 90° R.L. CED-STD	352	503	37	122					
5	T13589	160	CODO 3 X 90° R.L. CED-XS	315	494	38	120					
6	T96112	30	RED. CONC. 8 X 6 CED-STD	340	492	30	153					
7	T13866	374	CODO 4 X 90° R.L. CED-XS	468	574	30	150					
8	T88853	60	CODO 5 X 90° R.L. CED-XS	404	506	30	141					

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	T98480	98480	0.300	0.170	0.670	0.009	0.001	0.260	0.050	0.070	0.020	0.030	0.002	0.000
HF	T96571	96571	0.310	0.180	0.670	0.009	0.002	0.270	0.040	0.057	0.025	0.030	0.002	0.000
HF	T98481	98481	0.310	0.180	0.670	0.007	0.001	0.250	0.050	0.070	0.020	0.030	0.003	0.000
HF	T13588	13588	0.320	0.180	0.780	0.006	0.003	0.290	0.020	0.050	0.000	0.020	0.003	0.000
HF	T13589	13589	0.320	0.180	0.780	0.005	0.002	0.300	0.020	0.040	0.000	0.020	0.003	0.000
CF	T96112	96112	0.310	0.170	0.670	0.008	0.001	0.260	0.060	0.060	0.030	0.030	0.002	0.000
HF	T13866	13866	0.310	0.170	0.780	0.005	0.002	0.280	0.010	0.040	0.000	0.020	0.003	0.000
HF	T88853	88853	0.310	0.180	0.680	0.010	0.002	0.270	0.050	0.068	0.020	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°: 19008879 19002625 19026253 19045114 19044106 19048676 19056453 17047653

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°: 19008879 19002625 19026253 19045114 19044106 19048676 19056453 17047653

"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	 <b>Quality Manager/Jefe de Calidad:</b> <b>ING. ALFONSO ORTEGA GARCIA</b>	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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