



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

Numero:
Number:

19537

Pagina/Page:

1 DE 1

Tubos de Acero de México, S.A.
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Apartado Postal 43
(65550) C. de Flores, N.L. Méx.
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Vendido a: Sold to:	PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	3910 -	Lista de Empaque: Packing List:	10065	Fecha/Date:	5 de Enero de 2008
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234"M" WPB-97, A234"M" WPB-05a, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234"M", Grade WPB.		Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2003 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
34	S43766	50	RED. CONC. 2 1/2 X 1 1/2 CED-STD	327	498	32	124					
35	T19982	20	RED. CONC. 6 X 2 1/2 CED-STD	315	477	40	109					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														Certificamos que los resultados de los Analisis 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°: 313697 5000205 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".	
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V		%Nb
CF	S43766	43766	0.340	0.200	0.770	0.013	0.001	0.280	0.030	0.055	0.020	0.021	0.001		0.001
CF	T19982	19982	0.330	0.180	0.670	0.007	0.004	0.280	0.080	0.078	0.068	0.040	0.000	0.000	

<p>Notas:</p> <p>Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frio normalizado a 940°C max. Tiempo de permanencia 10'.</p> <p>Inspección Dimensional: Satisfactoria.</p> <p>HF: FORMADO EN CALIENTE/HOT FORMED</p>	<p>Notas:</p> <p>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'.</p> <p>Visual dimensional check: Satisfactory</p> <p>CF: FORMADO EN FRIO/COLD FORMED</p>	<p>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.</p> <p align="right"> Jefe de Calidad: Quality Manager: ING. JOSE MARTINEZ MACIAS </p>	<p>CC-008</p>
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