



Tubos de Acero de México, S.A.  
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<b>CERTIFICADO DE CALIDAD</b> <b>INSPECTION CERTIFICATE</b> (DIN EN 10204 3.1.B - ISO 10474 3.1.B)	
Vendido a: Sold to:	PLESA ANAHUAC
Numero: Number:	15657
Pagina/Page:	1 DE 1
Lista de Empaque: Packing List:	1019 1052
Fecha/Date:	27 de Febrero de 2006
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234-97, A234-02 / ASME A54 234 WPB -	
Pedido del Cliente No: Customers Order No:	
Dimensiones y tolerancias / Dimension and tolerances	
ASME B 16.9 and ASME B 16.28 edition 2001	
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 HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	T26889	100	ELLS 6 X 90 L.R. SCH-STD	287	441	40	112					
2	T25231	10	CONC. RED 10 X 4 SCH-STD	319	492	42	121					
3	T21932	1	CONC. RED 10 X 6 SCH-XH	312	463	37	104					
4	T25670	3	CONC. RED 10 X 6 SCH-XH	328	494	45	116					
5	T25666	10	CONC. RED 10 X 8 SCH-STD	329	502	45	116					
6	T25327	15	CONC. RED 12 X 10 SCH-STD	339	484	44	101					
7	T25279	3	CONC. RED 14 X 12 SCH-STD	325	483	44	126					
8	T13591	5	TEE 10 SCH-STD	355	450	34	116					
9	T22751	2	TEE 10 SCH-STD	311	480	33	118					
10	T24925	8	TEE 10 SCH-STD	305	483	42	128					
11	T25279	1	TEE 10 SCH-STD	325	483	44	126					

ANALISIS QUIMICO / CHEMICAL ANALYSIS													
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T26889	26889	0.313	0.170	0.680	0.010	0.001	0.280	0.060	0.043	0.050	0.000	0.000
CF	T25231	25231	0.315	0.170	0.680	0.009	0.005	0.280	0.070	0.023	0.060	0.000	0.000
CF	T21932	21932	0.310	0.180	0.660	0.008	0.002	0.260	0.030	0.039	0.030	0.000	0.000
CF	T25670	25670	0.312	0.170	0.680	0.009	0.001	0.280	0.060	0.040	0.040	0.000	0.000
CF	T25666	25666	0.333	0.180	0.710	0.008	0.001	0.290	0.070	0.043	0.050	0.000	0.000
CF	T25327	25327	0.332	0.190	0.720	0.009	0.002	0.300	0.050	0.023	0.040	0.000	0.000
CF	T25279	25279	0.321	0.180	0.710	0.009	0.000	0.280	0.060	0.020	0.040	0.000	0.000
CF	T13591	13591	0.329	0.180	0.740	0.008	0.001	0.260	0.050	0.050	0.030	0.000	0.000
CF	T22751	22751	0.328	0.180	0.680	0.015	0.002	0.270	0.090	0.043	0.040	0.000	0.000
CF	T24925	24925	0.329	0.190	0.670	0.015	0.000	0.260	0.070	0.035	0.030	0.000	0.000
CF	T25279	25279	0.321	0.180	0.710	0.009	0.000	0.280	0.060	0.020	0.040	0.000	0.000

Confirmamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante por el proveedor de Materia Prima conforme ASTM A106GradeB 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 certs conform to ASTM A106 Grade B N°  
 06002814 05026636 05008990  
 05028371 05028498 05028713  
 05025945 04014199 05013501  
 05025944 05025945

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 780°C-840°C, enfriado al aire.  
 Hot formed fittings in a range from 780°C to 840°C, cooled in still air.  
 Inspeccion Dimensional Satisfactoria  
 Visual dimensional check Satisfactory  
 Tiempo de permanencia 10'  
 Holding time 10'  
 Formado en caliente/HOT FORMED CF FORMADO EN FRIOCOLD FORMED

Jefe de Aseguramiento de Calidad:  
 Quality Assurance Coordinator

ING. JOSE MARTINEZ MACIAS

CC-008