



Tubos de Acero de México, S.A.  
Carr. Mty-Laredo Km. 24.2  
Apartado Postal 43  
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CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204 3.1.B - ISO 10474 3.1.B)		Numero: Number:	Pagina/Page:											
Pedido del Cliente No: 1322 1373 <td>1 6031</td> <td>1 DE 1</td>		1 6031	1 DE 1											
Customers Order No: Dimensiones y tolerancias / Dimension and tolerances <td colspan="2">Fecha/Date: 12 de Mayo de 2006</td>		Fecha/Date: 12 de Mayo de 2006												
ASME B 16.9-01 and ASME B 16.28 edition 1994 <td colspan="2">Factura/Invoice: Bocas / Ends Biselado / Bevelled ends</td>		Factura/Invoice: Bocas / Ends Biselado / Bevelled ends												
DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION		PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C												
ART. ITEM	COLADA HEAT CODE CANTIDA QUANTITY DESCRIPCION / DESCRIPTION	DIMENSIONES SAMPLE DIM mm	PROMEDIO AVERAGE Joules											
1	T25337 4 RED TEE 1.2 X 8 SCH-STD	1	Joules											
2	T17791 10 ELLS 10 X 90 L.R. SCH-20	2	Joules											
3	T22147 4 ELLS 10 X 90 L.R. SCH-20	3	Joules											
4	T12167 2 ELLS 10 X 90 L.R. SCH-20													
DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION		PRUEBAS MECANICAS / MECHANICAL TEST												
ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPTURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HB											
364	482	40	126											
310	482	39	123											
333	498	42	126											
323	491	46	144											
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	
CF	T25337	25337	0.320	0.190	0.670	0.011	0.003	0.270	0.040	0.073	0.013	0.040	0.000	0.000
HF	T17791	17791	0.325	0.190	0.660	0.019	0.002	0.280	0.060	0.058	0.034	0.030	0.000	0.000
HF	T22147	22147	0.340	0.180	0.780	0.016	0.001	0.270	0.070	0.062	0.050	0.030	0.000	0.000
HF	T12167	12167	0.327	0.190	0.690	0.001	0.001	0.280	0.050	0.077	0.020	0.040	0.000	0.000
Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante. 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. Material (Pipe) certs conform to ASTM A106 Grade B N°.														
06002498 04019777 05013271 3011290														
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.														
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.														
Jefe de Aseguramiento de Calidad:  Quality Assurance Coordinator														
ING. JOSE MARTINEZ MACIAS CC-008														

Notes:  
Hot formed fittings in a range from 760°C to 940°C, cooled in still air.  
Cold formed normalized at 840°C max.  
Holding time 10'  
Visual dimensional check: Satisfactory  
RF: FORMADO EN CALIENTE/NOT FORMED  
CF: FORMADO EN FRIOCOLD FORMED