



LAVISIA, S.A. DE C.V.

ORDEN

PART. No.

REFERENCIA

1
39290

Tubos de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
(65550) C. de Flores, N.L., Méx.
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CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number:	Pagina/Page:
		24955	1

Vendido a: Sold to:	Pedido del Cliente No: Customers Order No:	Lista de Empaque: Packing List:	Fecha/Date:
	10118 - 10882 - 10984 - 11008 - 11106 - 10990	12870	28 de Septiembre de 2011
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-07, NACE MR 01.76-2003 Conform to ASME II Ed. 2001 ASME SA-234, Grado WPB, NACE MR0103-2003	Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2007 and ASME B 16.28 - 1994		Factura/Invoice: Bocas / Ends Biselado / Sevelled 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	T56077	840	CODO 4 X 90° R.I. CED-STD	322	490	36	118					
2	S42774	10	CODO 4 X 90° R.I. CED-STD	325	505	33	140					
3	T55926	28	CODO 10 X 90° R.I. CED-STD	316	489	41	120					
4	T55089	132	CODO 10 X 90° R.I. CED-STD	315	492	40	122					
5	T56076	120	CODO 8 X 90° R.I. CED-STD	302	468	41	120					
6	T55440	60	CODO 8 X 90° R.I. CED-STD	322	482	42	122					
7	T56077	200	RED. CONC. 4 X 3 CED-STD	313	476	40	118					
8	T56078	28	RED. CONC. 4 X 2 CED-XS	323	488	43	116					
9	S33571	200	CODO 3 X 90° R.C. CED-STD	298	469	31	137					
10	S43735	50	CODO 2 X 180° R.I. CED-STD	351	504	30	126					
11	S43735	58	CODO 2 X 90° R.C. CED-STD	351	504	30	126					

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	T56077	56077	0.300	0.170	0.680	0.012	0.001	0.280	0.040	0.047	0.010	0.030	0.000	0.000	
HF	S42774	42774	0.320	0.180	0.750	0.012	0.002	0.300	0.040	0.024	0.010	0.015	0.002	0.002	
HF	T55926	55926	0.310	0.170	0.680	0.013	0.001	0.290	0.070	0.071	0.022	0.030	0.000	0.000	
HF	T55089	55089	0.310	0.180	0.680	0.009	0.002	0.280	0.040	0.056	0.012	0.030	0.000	0.000	
HF	T56076	56076	0.300	0.170	0.670	0.009	0.001	0.280	0.050	0.052	0.015	0.030	0.000	0.000	
HF	T55440	55440	0.320	0.180	0.710	0.009	0.001	0.290	0.050	0.059	0.014	0.030	0.000	0.000	
CF	T56077	56077	0.300	0.170	0.680	0.012	0.000	0.280	0.040	0.045	0.009	0.030	0.000	0.000	
CF	T56078	56078	0.300	0.170	0.680	0.013	0.001	0.270	0.050	0.046	0.011	0.030	0.000	0.000	
HF	S33571	33571	0.320	0.190	0.710	0.010	0.003	0.290	0.030	0.027	0.010	0.016	0.001	0.000	
HF	S43735	43735	0.310	0.180	0.720	0.011	0.001	0.270	0.020	0.020	0.010	0.019	0.002	0.002	
HF	S43735	43735	0.310	0.180	0.720	0.011	0.001	0.270	0.020	0.020	0.010	0.015	0.002	0.002	

Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tuberia Sin Costura) conforme ASTM A106 Grado B con N°: 11037704 10057872 11037949 11035966 11041005 11026530 11035961 11034435 479604 11004275 11004275

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) certis conform to ASTM A106 Grade B N°: 11037704 10057872 11037949 11035966 11041005 11026530 11035961 11034435 479604 11004275 11004275

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.

<p>Notas:</p> <p>Formado en caliente a 820°C-880°C, enfriado a aire.</p> <p>Hot formed fittings in a range from 820°C to 880°C, cooled in still air.</p> <p>Formado en frío normalizado a 940°C max.</p> <p>Cold formed normalized at 940°C max.</p> <p>Tiempo de permanencia 10'.</p> <p>Holding time 10'.</p> <p>Inspección Dimensional: Satisfactoria.</p> <p>Visual dimensional check: Satisfactory.</p> <p>HF: FORMADO EN CALIENTE/HOT FORMED</p> <p>CF: FORMADO EN FRIO/COLD FORMED</p>	<p>Quality Manager/Jefe de Calidad:</p> <p>ING. WALDO GALLEGOS GALVAN</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. The values of hardness for fittings NPS 2 1/2" and smaller ones obtained from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 50.</p> <p>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 50.</p>
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