

Tenaris

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CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Número: Number: 22400	Página/Page: 1 DE 1
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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 6232	Lista de Empaque: Packing List: 11393	Fecha/Date: 21 de Abril de 2009
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234M WPB-07, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234M Grade 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 / 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	T40571	1	TEE RED. 6 X 3 CED-XS	348	496	31	107					
2	T43329	1	TEE RED. 6 X 3 CED-XS	306	487	31	117					
3	T42774	100	CODO 6 X 90° R.L. CED-STD.	328	499	39	126					
4	T36429	8	CODO 6 X 45° CED-STD	314	466	39	97					
5	T34258	8	CODO 6 X 45° CED-STD	329	479	37	88					
6	T42080	16	CODO 6 X 45° CED-STD	321	523	35	100					
7	T38461	5	CODO 6 X 45° CED-STD	274	476	39	103					
8	T42416	11	CODO 6 X 45° CED-STD	250	440	38	103					
9	T41224	42	CODO 6 X 45° CED-STD	288	460	34	125					
10	T42633	45	RED. CONC. 8 X 6 CED-STD	301	475	42	118					
11	T32956	15	RED. CONC. 8 X 6 CED-STD	301	471	37	100					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														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°: 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°: 8039167 9007105 9001510 7047046 9010384 8063336 8011774 8065017 8054656 9001712 7010312 "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	
HF	T40571	40571	0.300	0.170	0.690	0.009	0.004	0.280	0.050	0.057	0.010	0.030	0.000	0.000
HF	T43329	43329	0.310	0.180	0.670	0.012	0.000	0.290	0.040	0.044	0.017	0.020	0.000	0.000
HF	T42774	42774	0.310	0.180	0.670	0.015	0.003	0.260	0.040	0.068	0.022	0.030	0.000	0.000
HF	T36429	36429	0.300	0.170	0.670	0.015	0.002	0.280	0.040	0.055	0.013	0.030	0.000	0.000
HF	T34258	34258	0.320	0.180	0.650	0.009	0.001	0.280	0.070	0.077	0.044	0.040	0.000	0.000
HF	T42080	42080	0.320	0.180	0.680	0.009	0.000	0.260	0.060	0.063	0.023	0.040	0.000	0.000
HF	T38461	38461	0.310	0.170	0.710	0.014	0.002	0.270	0.070	0.043	0.033	0.030	0.000	0.000
HF	T42416	42416	0.300	0.170	0.670	0.012	0.001	0.300	0.040	0.054	0.022	0.030	0.000	0.000
HF	T41224	41224	0.300	0.170	0.650	0.015	0.001	0.280	0.050	0.051	0.018	0.030	0.000	0.000
CF	T42633	42633	0.300	0.170	0.670	0.011	0.002	0.270	0.050	0.055	0.018	0.030	0.000	0.000
CF	T32956	32956	0.300	0.170	0.660	0.009	0.003	0.280	0.060	0.055	0.019	0.030	0.000	0.000

<p>Notas:</p> <p>Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max.</p> <p>Tiempo de permanencia 10'.</p> <p>Inspección Dimensional: Satisfactoria.</p> <p>HF: FORMADO EN CALIENTE/HOT FORMED</p>	<p>Notes:</p> <p>Hot formed fittings in a range from 620°C to 980°C, cooled in still air.</p> <p>Cold formed normalized at 940°C max.</p> <p>Holding time 10'.</p> <p>Visual dimensional check: Satisfactory</p> <p>CF: FORMADO EN FRIO/COLD FORMED</p>	<p><i>Waldo Gallegos</i></p> <p>Quality Manager / Jefe de Calidad: 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 obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60.</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 60.</p>
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