Tenaris

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

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Vendido a: Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.	Pedido del Cliente No: Customers Order No: 9335 - 8776 - 9257 -	Lista de Empaque: Packing List: 12335	Fecha/Date: 17 de Noviembre de 2010

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	T43504	1	CODO 16 X 45° CED-STD	318	483	36	93					
2	T49702	1	CODO 16 X 45° CED-STD	318	480	44	120					
3	T51309	18	CODO 12 X 90° R.L. CED-STD	304	487	43	122					
4	T50463	4	CODO 16 X 90° R.L. CED-STD	319	494	33	96					
5	T46857	1	RED. CONC. 10 X 6 CED-XS	316	488	40	122					
6	T49309	4	TEE 12 CED-40	295	470	31	110					

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	T43504	43504	0.320	0.180	0.680	0.010	0.003	0.300	0.060	0.074	0.014	0.030	0.000	0.000
HF	T49702	49702	0.300	0.170	0.690	0.011	0.002	0.280	0.030	0.051	0.022	0.030	0.000	0.000
HF	T51309	51309	0.310	0.180	0.660	0.013	0.001	0.280	0.050	0.052	0.019	0.030	0.000	0.000
HF	T50463	50463	0.330	0.190	0.700	0.011	0.003	0.270	0.060	0.054	0.022	0.030	0.000	0.000
CF	T46857	46857	0.310	0.180	0.660	0.011	0.003	0.300	0.040	0.077	0.029	0.040	0.000	0.000
HF	T49309	49309	0.320	0.190	0.680	0.013	0.003	0.290	0.020	0.046	0.018	0.020	0.000	0.000

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 Nº:
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 suplier Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B Nº:
9024548 10032780 10042607 10034323 10017089 10023670

"Este material cumple con los requerimientos especificados en la orden".
"The material of this certificate heat number mentioned above is in compilance with the requirements specified in the order".

Notas:
Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max.
Tiempo de permanencia 10'.
Inspección Dimensional: Satisfactoria.
HF: FORMADO EN CALIENTE/HOT FORMED

Notes:
Hot formed fittings in a range from 620°C to 980°C, cooled in still air,
Cold formed nomalized at 940°C max.
Holding time 10'.
Visual dimensional check: Satisfactory
CF: FORMADO EN FRIO/COLD FORMED

Quality Manager/Jefe de Calidad:
ING. WALDO GALLEGOS GALVAN

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.
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.

CC-008