

anaris

Tubos de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
(65550) C. de Flores, N.L. Méx.
(52) 81 8305 9600 tel.
(52) 81 8305 9630 fax.

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE (DIN EN 10204:2004E - ISO 10474 3.1.B)		Numero: Number: 25047	Pagina/Page: 3
--	--	-----------------------------	-------------------

Vendido a: Sold to: TUVANSA	Pedido del Cliente No: Customers Order No: 11281 - 10882 - 11279 -	Lista de Empaque: Packing List: 12925	Fecha/Date: 26 de Octubre de 201
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-07, NACE MR 01.75-2003 Conform to ASME II Ed. 2001 ASME SA-234, 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
23	T41950	2	TEE RED. 12 X 8 C-80	325	463	53	114					
24	T54815	18	TEE RED. 12 X 10 CED-STD	347	481	48	124					
25	T53304	7	TEE RED. 12 X 10 CED-STD	347	471	46	122					
26	T55033	11	TEE RED. 12 X 10 CED-STD	339	485	48	120					
27	S69900	84	CODO 2 1/2 X 90° R.C. CED-STD	318	485	33	142					
28	S33990	416	CODO 2 1/2 X 90° R.C. CED-STD	344	487	51	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	T41950	41950	0.300	0.170	0.660	0.007	0.002	0.260	0.050	0.040	0.020	0.030	0.000	0.000
HF	T54815	54815	0.310	0.180	0.670	0.007	0.001	0.290	0.060	0.054	0.020	0.030	0.000	0.000
HF	T53304	53304	0.290	0.160	0.660	0.008	0.002	0.260	0.050	0.070	0.020	0.060	0.000	0.000
HF	T55033	55033	0.320	0.180	0.680	0.008	0.001	0.270	0.070	0.034	0.024	0.030	0.000	0.000
HF	S69900	69900	0.329	0.180	0.770	0.014	0.002	0.290	0.050	0.062	0.020	0.029	0.001	0.001
HF	S33990	33990	0.314	0.180	0.720	0.012	0.001	0.300	0.030	0.027	0.020	0.019	0.001	0.001

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° 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 A 106 Grade B N° 9002226 11020786 11028792 11034137 257125 218549

"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: Formado en caliente a 820°C-980°C, enfriado al Hv: Formado en frío normalizado a 940°C max. Tiempo de permanencia 10'. Inspeccion Dimensional: Satisfactoria. HF: FORMADO EN CALIENTE/HOT FORMED</p>	<p>Notes: Hot formed fittings in a range from 820°C to 980°C, cooled in still air. Cold formed normalized at 940°C max. Holding time 10'. Visual dimensional check: Satisfactory CF: FORMADO EN FRIJO/COLD FORMED</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. 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> <p style="text-align: center;">  Quality Manager/Jefe de Calidad: ING. WALDO GALLEGOS GALVAN </p>
--	---	--