

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE

(DIN EN 10204 3.1.B - ISO 10474 3.1.B)

Empresa Rigal, S.A. de C.V.
Carretera Laredo Km. 23.7
Ciudad de Flores, N.L. 65590
Tel: (81) 83-44 88-60
Fax: (81) 83-44 88-01

Vendido a: PLESA ANAHUAC

Pedido del Cliente No: 100000789, VAR

Lista de Empaque:
Packing List:

7 3 5 9

Fecha/Date: 25 de Febrero de 2005

Especificaciones y Grados / Standard or Specification and Steel Grade

Customers Order No: Dimensiones y tolerancias / Dimension and tolerances

Factura/Invoice:

Bocas / Ends

Biselado / Bevelled ends

Seamless Fittings according to ASTM A 234-97, A234-02 / ASME USA 234 WPB - NACE MR 01.75 ed. 02 - Conform to ASME II Ed. 2001

ASME B 16.9 and ASME B 16.28 edition 2001

ART. ITEM	COLADA HEAT CODE	CANTIDA QUANTITY	DESCRIPCION / DESCRIPTION	PRUEBAS MECANICAS / MECHANICAL TEST			PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C							
				ESF. CEJENCA YIELD STRENGTH (Mpa)	ESF. RUPATURA TENSILE STRENGTH (Mpa)	ELONG % ²	DUREZA HARDNESS HB	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules		
1	T19909	9	CODO 12 X 90 RL XS	331	483	44	137							
2	S33638	100	CODO 4 X 45 STD	360	501	51	130							
3	T18325	10	RED CONC 10 X 8 STD	307	478	44	139							
4	T17005	3	RED CONC 12 X 8 STD	322	482	46	141							
5	T18066	27	RED CONC 12 X 8 STD	346	490	45	139							
6	T13591	6	RED 14 X 8 STD	322	474	43	141							
7	T13719	6	RED CONC 16 X 12 STD	388	505	45	112							
8	T13719	6	RED CONC 16 X 9 STD	388	505	45	112							
9	S33415	15	RED CONC 2 X 1 1/4 XS	347	500	51	126							
10	T32872	200	CODO 1 X 90 R L STD	281	440	53	70							

ANALISIS QUIMICO / CHEMICAL ANALYSIS

PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	%C	%E	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T19909	19909	0.313	0.180	0.680	0.007	0.001	0.280	0.040	0.069	0.025	0.030	0.000	0.000
HF	S33638	33638	0.319	0.180	0.760	0.010	0.001	0.270	0.030	0.034	0.010	0.021	0.001	0.001
CF	T18325	18325	0.318	0.180	0.670	0.009	0.001	0.280	0.060	0.056	0.042	0.030	0.000	0.000
CF	T17005	17005	0.315	0.180	0.680	0.014	0.002	0.250	0.050	0.062	0.026	0.030	0.000	0.000
CF	T18066	18066	0.332	0.180	0.780	0.008	0.003	0.290	0.050	0.066	0.030	0.030	0.000	0.000
CF	T13591	13591	0.329	0.180	0.740	0.009	0.001	0.260	0.050	0.052	0.030	0.030	0.000	0.000
CF	T13719	13719	0.315	0.190	0.650	0.014	0.003	0.280	0.050	0.062	0.003	0.030	0.000	0.000
CF	T13719	13719	0.315	0.190	0.650	0.014	0.003	0.280	0.050	0.062	0.003	0.030	0.000	0.000
CF	S33415	33415	0.339	0.180	0.830	0.014	0.001	0.300	0.050	0.065	0.020	0.033	0.001	0.001
HF	T32872	32872	0.272	0.154	0.579	0.000	0.001	0.186	0.053	0.043	0.030	0.024	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 y/o el proveedor de Materia Prima conforme ASTM A1096-GradeB 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 certificate conform to ASTM A1096 Grade B N°: 04028893 218577 04025781 04013922 04018127 04014139 03018786 03018786 218551 T-3766/1

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.

Notas:
Formado en caliente a 780°C-940°C, enfriado al aire.
Formed in the normalized at 940°C max.
Tempo de permanencia 10'.
Holding time 10'.

Inspección Dimensional Satisfactoria
Visual dimensioncheck: Satisfactory

Formado en caliente a 780°C-940°C, enfriado al aire.
Hot formed fittings in a range from 780°C to 940°C, cooled in air.
Codi formed normalized at 940°C max.
Holding time 10'.

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Jefe de Aseguramiento de Calidad:
Quality Assurance Coordinator

ING. JOSE MARTINEZ MACIAS

CC-008