



EMPRESAS RIGA, S.A de C.V.

CONEXIÓN SOLDABLE

CARR. MTY-LAREDO KM. 24.2

APARTADO POSTAL 43 C.P. 65550 CIÉNEGA DE FLORES, N.L., MÉXICO

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CERTIFICADO DE CALIDAD No.: 9578 CERTIFIED TEST REPORT:	LISTA DE EMPAQUE: 5648 PACKING LIST:	FECHA: NOVIEMBRE 29 de 2002 DATE:
VENDIDO A: TUBOS CONEXIONES Y TANQUES, S.A. DE C.V. SOLD TO: VALLE DE LA ALAMEDAS 66-C COL. SAN FCO. CHILPAN, TULTI., EDO. DE MEXICO	PEDIDO DEL CLIENTE No. CUSTOMERS ORDER No. 4872 5139 5197	EMBARCADO A: SHIP TO: LOS MISMOS PAGINA/PAGE: 1 DE 1

PRUEBAS MECANICAS/MECHANICAL TEST

CANTIDAD QUANTITY	COLADA HEAT CODE	DESCRIPCION DESCRIPTION	PRODUCTO FINAL/FINISHED PRODUCT				
			ESF. DE CEDENCIA YIELD STRENGTH (PSI)	ESF. RUPTURA TENSILE STRENGTH (PSI)	ELONGACION ELONGATION % 2"	DUREZA HARDNESS HB	IMPACTO 0°C IMPACT TEST 0°C X (JOULES)
			4	EF5	CODO R.L. 8 X 90 CED STD	46561	69507
60	JK5	CODO R.L. 8 X 90 CED STD	43971	70759	38	137	N/A
56	JL5	CODO R.L. 8 X 90 CED STD	43971	70759	38	140	N/A
15	GS5	RED. CONC. 12 X 8 CED STD	49167	73080	37	147	N/A
9	GW5	RED. CONC. 16 X 8 CED STD	53076	71385	44	147	N/A
1	IJ4	RED. CONC. 16 X 8 CED STD	45169	68093	32	147	N/A
170	IV4	RED. CONC. 3 X 2 CED XS	51624	72881	32	120	N/A
50	JT5	RED. CONC. 4 X 3 CED STD	46545	69818	38	140	N/A
60	CX5	RED. CONC. 6 X 3 CED STD	45463	69627	30	131	N/A
16	EJ5	TEE 14 CED STD	48396	67700	45	143	N/A
8	CT5	TEE 16 CED STD	48125	68013	46	144	N/A

ANALISIS QUIMICO/CHEMICAL ANALYSIS

COLADA HEAT CODE	COLADA/HEAT M.P./MOTHER PIPE	C.E.	C	Mn	P	S	Si	Cr	Cu	Mo	Ni	V	Nb
EF5 /	96344	0.312	0.180	0.650	0.008	0.002	0.270	0.050	0.080	0.030	0.040	0.000	0.000
JK5 /	97449	0.345	0.180	0.840	0.006	0.001	0.260	0.050	0.067	0.035	0.050	0.000	0.000
JL5 /	97449	0.345	0.180	0.840	0.006	0.001	0.260	0.050	0.067	0.035	0.050	0.000	0.000
GS5 /	96428	0.339	0.190	0.780	0.012	0.003	0.300	0.050	0.062	0.010	0.040	0.000	0.000
GW5 /	96772	0.314	0.180	0.690	0.007	0.003	0.290	0.040	0.070	0.016	0.040	0.000	0.000
IJ4 /	88406	0.307	0.160	0.660	0.007	0.003	0.280	0.040	0.300	0.034	0.030	0.000	0.000
IV4 /	86691	0.280	0.167	0.598	0.001	0.002	0.281	0.026	0.093	0.002	0.016	0.002	0.000
JT5 /	22040	0.322	0.190	0.720	0.010	0.001	0.300	0.030	0.050	0.001	0.040	0.001	0.001
CX5 /	95795	0.294	0.160	0.670	0.006	0.001	0.270	0.050	0.061	0.031	0.030	0.000	0.000
EJ5 /	96419	0.300	0.170	0.660	0.008	0.003	0.260	0.050	0.070	0.015	0.040	0.000	0.000
CT5 /	95752	0.298	0.170	0.650	0.007	0.003	0.250	0.050	0.065	0.019	0.030	0.000	0.000

LOS PRODUCTOS MANUFACTURADOS POR EMPRESAS RIGA, S.A. de C.V. ESTAN CONFORME A LAS SIGUIENTES ESPECIFICACIONES:
 PRODUCTS MANUFACTURED BY EMPRESAS RIGA, S.A. de C.V. ARE CONFORMING TO FOLLOWING SPECIFICATIONS:
 MATERIA PRIMA T S/C / STARTING MATERIAL SEAMLESS PIPE: ASTM A 106 GRADE B ACCORDING TO DIN 50049/3.1. B/EN 10204/3.1. B.
 MATERIAL CONFORME A:
 MATERIAL CONFORM TO: ASTM A 234 WPB, ASME SA 234 WPB, ASME II PART A ED. 2001, ASME B16.9, ASME B16.28 AND TO NACE MR 01.75 ED 2001.
 CONEXIONES SIN COSTURA, FORJADO EN CALIENTE (ENFRIADO AL AIRE) O NORMALIZADO (TEMPERATURA 920°C MAX PERMANENCIA 10').
 SEAMLESS FITTINGS, HOT FORMED (COOLED IN STILL AIR) OR NORMALIZED (TEMPERATURE IE 920°C MAX. AND HOLDING TIME IE 10').
 INSPECCION VISUAL Y DIMENSIONAL CONFORME A STANDARDS APLICABLES.
 VISUAL AND DIMENSIONAL TEST CONFORM TO THE APPLICABLE STANDARD.

GERENTE DE ASEGURAMIENTO DE CALIDAD:
 QUALITY ASSURANCE MANAGER:

ING. JOSE MARTINEZ MACIAS.

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