



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.: 9577 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. 4797, 4872, 5139, 5197	EMBARCADO A: SHIP TO: LOS MISMOS

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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)
			7	DD5	CODO R.L. 16 X 90 CED XS	44284	68269
9	GD5	CODO R.L. 16 X 90 CED XS	46788	73518	42	135	N/A
200	JH5	CODO R.L. 2 X 90 CED XS	47709	70545	36	128	N/A
308	HE5	CODO R.L. 3 X 90 CED STD	46836	69381	38	135	N/A
673	IP5	CODO R.L. 3 X 90 CED STD	46690	70690	41	131	N/A
75	NF5	CODO R.L. 3 X 90 CED STD	57543	74813	37	129	N/A
150	JF5	CODO 4 X 45 CED STD	50181	74472	36	136	N/A
295	MO5	CODO R.L. 4 X 90 CED STD	49847	71385	36	139	N/A
161	MX5	CODO R.L. 4 X 90 CED STD	50672	72124	36	133	N/A
200	LE5	CODO R.L. 6 X 90 CED STD	35128	67814	32	139	N/A
60	DS5	CODO 8 X 45 CED STD	44398	68852	39	139	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
DD5 /	95862	0.295	0.170	0.650	0.008	0.000	0.280	0.040	0.048	0.016	0.030	0.000	0.000
GD5 /	96428	0.327	0.180	0.770	0.011	0.003	0.300	0.050	0.063	0.010	0.040	0.000	0.000
JH5 /	22069	0.316	0.180	0.700	0.010	0.001	0.280	0.050	0.040	0.020	0.030	0.001	0.001
HE5 /	22020	0.338	0.190	0.780	0.009	0.001	0.310	0.040	0.050	0.020	0.030	0.001	0.001
IP5 /	22021	0.320	0.180	0.750	0.011	0.001	0.290	0.030	0.040	0.020	0.030	0.001	0.001
NF5 /	97449	0.342	0.180	0.820	0.006	0.001	0.270	0.050	0.069	0.035	0.050	0.000	0.000
JF5 /	22346	0.332	0.190	0.740	0.012	0.002	0.320	0.040	0.060	0.020	0.030	0.001	0.001
MO5 /	98060	0.341	0.190	0.740	0.008	0.005	0.280	0.060	0.080	0.036	0.050	0.000	0.000
MX5 /	98159	0.340	0.180	0.800	0.012	0.003	0.290	0.070	0.076	0.026	0.040	0.000	0.000
LE5 /	97757	0.315	0.180	0.680	0.007	0.004	0.270	0.050	0.064	0.024	0.040	0.000	0.000
DS5 /	96343	0.307	0.170	0.660	0.006	0.004	0.270	0.050	0.076	0.044	0.040	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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