



FLM-005-7
PROCARSA, S.A. DE CV.

**CERTIFICADO DE CALIDAD
 DE PRUEBAS FISICAS-QUIMICAS**

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: TUCOTA
 CUSTOMER:

NUMERO PTM-52513-1-2002
 NUMBER

PEDIDO CLIENTE / P.O. 9157
 PEDIDO INTERNO / I.O.

FECHA / DATE
 JULIO 13, 2002

PARTIDA (S) 10120-10 / XY802-1 / 2492-5

DIAMETRO: 18" ESPESOR DE PARED 0.290" GRADO: ASTM A53-B PRESION HIDROSTATICA: 41 Kg/cm² 580 PSI
 DIAMETER: 18" WALL THICKNESS 0.290" GRADE: ASTM A53-B HYDROSTATIC TEST: 41 Kg/cm² 580 PSI

TENSILE TEST

CHEMICAL ANALYSES PERCENT WEIGHT

MINIPROBETA DESCRIPTION	GRADO HEAT	LIMIT ELASTICO YIELD STRENGTH (KALI)	TENSIL TENSION TENSILE STRENGTH (KALI)	% ELONG. T	LEAD YIELD	C	Mn	P	S	Cl	V	SI	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
8-5 Tc Ts	103892	50 397	69 436 72 183	37	0.73	0.147	1.00	0.018	0.008	-	-	0.186	0.026	0.040	0.0031	0.015	0.038	-	0.0056	-
36-6 Tc Ts	203899	53 735	70 162 73 473	38	0.77	0.142	0.82	0.015	0.005	-	-	0.190	0.016	0.038	0.0023	0.035	0.036	-	0.0066	-
12-7 Tc Ts	203900	51 020	70 011 72 593	38	0.73	0.145	0.91	0.015	0.008	-	-	0.167	0.013	0.050	0.0026	0.018	0.034	-	0.0063	-
32-12 Tc Ts	203901	50 850	68 986 69 574	38	0.76	0.120	0.91	0.015	0.008	-	-	0.150	0.018	0.050	0.0022	0.017	0.033	-	0.0055	-
30-1 Tc Ts	203902	48 301	67 321 69 161	37	0.69	0.128	0.89	0.016	0.007	-	-	0.150	0.015	0.046	0.0028	0.019	0.029	-	0.0059	-
43-18 Tc Ts	204652	48 342	68 574 72 222	40	0.72	0.152	0.750	0.022	0.007	-	-	0.227	0.028	0.042	0.0014	0.023	0.030	-	0.0080	-
12-98 Tc Ts	289108	53 237	72 136 81 648	30	0.74	0.160	0.91	0.017	0.011	-	-	0.143	0.016	0.037	0.0026	0.032	0.032	-	0.0050	-

CERTIFICAMOS QUE LA TUBERIA AQUI DESCRITA CUMPLE Y HA SIDO FABRICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO CON LOS REQUISITOS APLICABLES DE LA ESPECIFICACION:

WE CERTIFY THE PIPE ABOVE MENTIONED ACCOMPLISH AND HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SPECIFICATIONS:

ASTM


 ING FERNANDO OSORNO-FEREZ
 GERENTE DE ASEGURAMIENTO DE CALIDAD
 QUALITY ASSURANCE MANAGER