



FLM-005-7

PROCARSA, S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

DIAMETRO: 10 3/4"      ESPESOR DE PARED: 0.250"      GRADO:      ASTM A53-B      ANALISIS QUIMICO % EN PESO: 69 Kg/cm<sup>2</sup>      980 PSI

**PRUEBAS DE TENSION**

**TENSILE TEST**

**CHEMICAL ANALYSES PERCENT WEIGHT**

NUM. PROBE DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (PSI)	ULTIMA TENSION TENSILE STRENGTH (PSI)	% ELONG. 1"	LEAD Y.F.T.S	C	Mn	P	S	Ch	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	C
15-28 TC TS	236059	48 822	66 453 76 471	37	0.73	0.165	1.10	0.018	0.006	0.001	0.005	0.004	0.322	0.015	0.038	0.0025	0.013	0.020	0.003	0.0056	
23-11 TC TS	236060	54 288	70 985 78 522	34	0.78	0.165	1.08	0.016	0.006	0.001	0.002	0.004	0.316	0.031	0.035	0.0019	0.018	0.025	0.006	0.0048	
24-16 TC TS	236061	51 516	67 257 79 091	36	0.77	0.157	1.10	0.016	0.006	0.001	0.002	0.003	0.281	0.022	0.035	0.0014	0.017	0.026	0.004	0.0043	
25-13 TC TS	236062	53 851	69 040 76 789	36	0.78	0.153	1.05	0.020	0.006	0.001	0.003	0.004	0.288	0.021	0.037	0.0016	0.016	0.026	0.003	0.0049	
10-16 TC TS	236085	51 027	73 082 77 558	36	0.70	0.173	1.11	0.017	0.005	0.001	0.005	0.004	0.273	0.024	0.032	0.0026	0.019	0.022	0.005	0.0039	
14-20 TC TS	236086	59 126	65 844 75 719	37	0.79	0.162	1.11	0.021	0.006	0.001	0.002	0.003	0.282	0.016	0.044	0.0029	0.011	0.021	0.003	0.0063	

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

ASTM A53-B -99

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

ING. FERNANDO OSORIO PEREZ  
GERENTE DE ASEGURAMIENTO DE CALIDAD  
QUALITY ASSURANCE MANAGER

CLIENTE: TUCOTA      NUMERO: PTM-57182-2003

CUSTOMER:      PEDIDO CLIENTE/P.O. 11349

PEDIDO INTERNO/I.O.      PARTIDA (S) 49827-30

PRESSION HIDROSTATICA: 980 PSI      FECHA: DICIEMBRE 22, 2003

HIDROSTATIC TEST:      DATE