



FLN-4005-7

PROCARSA, S.A. DE C.V.

CERTIFICADO DE CALIDAD DE PRUEBAS FISICAS-QUIMICAS

CLIENTE:	TUCOTA	NÚMERO	PTM-57061-2003
CUSTOMER:		FECHA	DICIEMBRE 15, 2003
PEDIDO CLIENTE / P.O.	11077	DATE	
PEDIDO INTERNO / I.O.			
PARTIDA (S)			
ITEMS	48987-10 / 49877-10		

ITEMS: 20" **ESPESSOR DE PARED** 0.250" **GRADE:** ASTM A53-B **PRESION HIDROSTATICA:** 520 PSI

PRUEBAS DE TENSION

ANALISIS QUIMICO % EN PESO

PROBETA X RUPCION	COLADA H.A.	LIMITE ELASTICO YIELD STRENGTH (F _{0.2})	ULTIMA TENSION TENSILE STRENGTH (F _{0.1})	% ELONG. E _T	LEAULT V.97.5	CHEMICAL ANALYSES PERCENT WEIGHT														
						C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N
62-5 TC	135385	43 912	69 039	36	0.64	0.161	1.12	0.016	0.005	0.001	0.002	0.004	0.301	0.013	0.040	0.0026	0.014	0.025	0.005	0.0052
90-12 TC	135387	52 011	76 692	38	0.70	0.174	1.08	0.015	0.006	0.003	0.004	0.004	0.337	0.023	0.035	0.0030	0.017	0.040	0.009	0.0049
33-16 TC	135388	48 033	78 210	36	0.68	0.164	1.08	0.018	0.005	0.001	0.003	0.004	0.290	0.017	0.037	0.0033	0.017	0.024	0.005	0.0055
32-10 TC	135389	51 371	78 659	36	0.72	0.180	1.12	0.017	0.006	0.003	0.005	0.004	0.306	0.020	0.032	0.0032	0.024	0.015	0.009	0.0051
16-6 TC	135390	47 306	71 438	37	0.69	0.179	1.10	0.015	0.007	0.005	0.004	0.004	0.332	0.015	0.027	0.0032	0.021	0.011	0.008	0.0080
30-11 TC	135391	50 633	75 852	35	0.70	0.162	1.11	0.019	0.006	0.001	0.002	0.004	0.299	0.015	0.036	0.0032	0.010	0.022	0.004	0.0054
36-4 TC	235129	47 682	77 864	38	0.68	0.164	1.12	0.016	0.005	0.001	0.001	0.003	0.257	0.012	0.040	0.0015	0.015	0.024	0.004	0.0050
37-4 TC	235130	47 876	69 668	37	0.70	0.157	1.10	0.016	0.007	0.001	0.003	0.004	0.297	0.017	0.031	0.0016	0.014	0.023	0.004	0.0037
6-11 TC	235131	49 798	74 259	36	0.71	0.169	1.07	0.018	0.007	0.002	0.004	0.004	0.261	0.012	0.038	0.0020	0.017	0.006	0.007	0.0076
54-8 TC	235132	44 837	69 987	37	0.62	0.157	1.12	0.014	0.009	0.001	0.002	0.003	0.291	0.019	0.045	0.0026	0.016	0.025	0.006	0.0056
85-13 TC	235133	47 493	76 730	36	0.69	0.157	1.07	0.014	0.007	0.005	0.004	0.004	0.278	0.014	0.038	0.0020	0.017	0.009	0.009	0.0067
61-4 TC	235134	48 944	73 830	34	0.70	0.170	1.13	0.016	0.007	0.001	0.002	0.003	0.326	0.015	0.041	0.0029	0.017	0.025	0.004	0.0058
11-12 TC	235793	52 843	69 990	38	0.74	0.166	1.12	0.019	0.007	0.004	0.005	0.004	0.261	0.023	0.037	0.0026	0.023	0.045	0.011	0.0053
1-8 TC	235794	46 101	77 691	40	0.67	0.156	1.12	0.014	0.008	0.005	0.004	0.004	0.299	0.012	0.045	0.0030	0.020	0.026	0.01	0.0056

RICAMOS QUE LA TUBERIA AGUÍ DESCRITA CUMPLE Y HA SIDO
RICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO
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 A53-B -99

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