



FLM-005-7

PROCARSA, S.A. DE C.V.
CERTIFICADO DE CALIDAD
DE PRUEBAS FISICAS-QUIMICAS
 QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE:	TUCOTA	NUMERO:	PTM-52511-2002
CUSTOMER:		NUMBER:	
PEDIDO CLIENTE / P.O.	9157	FECHA:	JULIO 13, 2002
PEDIDO INTERNO / I.O.		DATE:	
PARTIDA (S)	27126-30 / 30778-30		
ITEMS			

DIAMETRO: 12 3/4" ESPESOR DE PARED: 0.406" GRADO: ASTM A53-B PRESION HIDROSTATICA: 94 Kg/cm² 1340 PSI

WALL THICKNESS CHEMICAL ANALYSIS PERCENT WEIGHT

PROBETA DESCRIPCION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (PSI)	ULTIMA TENSION TENSILE STRENGTH (PSI)	% ELONG. T	LEANT V.775	C	Mn	P	S	CB	V	TI	Si	Cu	Al	Ca	Ni	Mo	N	Ceq
5-7 TC TS	33828	53 036	63 043	37	0.83	0.170	0.73	0.011	0.006	0.0021	0.0004	0.0019	0.138	0.006	0.044	0.0004	0.004	0.009	0.0008	0.0033
3-7 TC TS	43610	51 080	70 687	40	0.81	0.180	0.80	0.009	0.003	0.0018	0.0004	0.0022	0.214	0.009	0.042	0.0008	0.002	0.007	0.0008	0.0018
5-12 TC TS	118508	53 701	70 975	38	0.76	0.188	1.11	0.014	0.004	0.001	0.002	0.003	0.212	0.031	0.040	0.0037	0.017	0.027	0.005	0.0048
17-14 TC TS	118514	55 697	77 290	35	0.77	0.151	1.11	0.012	0.006	0.002	0.003	0.003	0.188	0.022	0.045	0.0023	0.020	0.017	0.013	0.0051
4-13 TC TS	118516	53 964	72 064	35	0.75	0.150	1.12	0.016	0.007	0.003	0.004	0.003	0.183	0.017	0.029	0.0037	0.021	0.019	0.014	0.0048
12-5 TC TS	118517	53 357	78 487	36	0.81	0.150	1.12	0.017	0.007	0.002	0.003	0.002	0.180	0.016	0.037	0.0031	0.018	0.021	0.014	0.0044
7-15 TC TS	218173	56 306	85 796	35	0.82	0.153	1.09	0.014	0.006	0.002	0.003	0.003	0.187	0.027	0.037	0.0027	0.027	0.023	0.015	0.0051
3-14 TC TS	218183	55 172	77 014	38	0.79	0.163	1.06	0.019	0.007	0.003	0.004	0.001	0.182	0.018	0.036	0.0036	0.017	0.027	0.008	0.0055

CONFIRMAMOS QUE LA TUBERIA ACUÍ DESCRITA CUMPLE Y HA SIDO
 VERIFICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO
 A 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

[Signature]
 MRS. FERNANDO VENTURA PEREZ
 GERENTE DE ASEGURAMIENTO DE CALIDAD
 QUALITY ASSURANCE MANAGER