



PROCARSA, S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICAL-CHEMICAL

DIAMETRO: 10 3/4" ESPESOR DE PARED: 0.250" GRADO: ASTM A53-B PRESION HIDROSTATICA: 980 PSI

CLIENTE:	TRICOTA	NUMERO:	PTM-56929-30-2003
CUSTOMER:		NUMBR:	
PELIDO CLIENTE/PCO:	11145	FECHA:	DIC/EMBRE 03, 2003
PELIDO INTERNO/ID:		DATE:	
PARTIDA(S):	49827-30		

TENSILE TEST

CHEMICAL ANALYSIS PERCENT WEIGHT

MINI-PROBETA DESCRIPTION	COLADA HEAT	LMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. E ₂	LEADIT V.S.T.S.	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
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	236080	54 268	70 965 78 522	34	0.76	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	52 126	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 AGUI 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 A53-B -99

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