



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: **PTA-54374-1-2003**  
 CUSTOMER: **TUCOTA**  
 PEDIDO CLIENTE / P.O. **10040**  
 PEDIDO INTERNO / I.O. **39905-10**  
 PARTIDA (S) **39905-10**  
 ITENS **37 Kg/cm<sup>2</sup>**  
 PRESSION HIDROSTATICA: **520 PSI**  
 HIDROSTATIC TEST: **520 PSI**  
 FECHA **MARZO 19, 2003**  
 DATE

DIAMETRO: **20"** ESPESOR DE PARED **0.250"**  
 WALL THICKNESS

GRADO: **ASTM A53-B**

ANALISIS QUIMICO % EN PESO  
 CHEMICAL ANALYSES PERCENT WEIGHT

PRUEBAS DE TENSION  
 TENSILE TEST

NOM./PROBETA DESCRIPCION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (Q.SLL)	ULTIMA TENSION TENSILE STRENGTH (Q.SLL)	% ELONG 2"	LENG YS.TS	ANALISIS QUIMICO % EN PESO CHEMICAL ANALYSES PERCENT WEIGHT														
						C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N
13-11 Tc Ts	126585	48 825	70 029	36	0.70	0.180	1.13	0.015	0.006	0.001	0.004	0.003	0.200	0.016	0.032	0.0030	0.017	0.027	0.004	0.0050
2-18 Tc Ts	126586	52 617	71 957	36	0.73	0.178	1.12	0.013	0.007	0.003	0.004	0.004	0.209	0.018	0.034	0.0022	0.016	0.030	0.012	0.0037
12-15 Tc Ts	126589	50 669	71 217	34	0.71	0.171	1.11	0.017	0.008	0.001	0.004	0.004	0.228	0.020	0.045	0.0010	0.014	0.027	0.005	0.0051

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 PEREZ  
 GERENTE DE ASEGURAMIENTO DE CALIDAD  
 QUALITY ASSURANCE MANAGER