



FLM-005-7  
PROCARSA, S.A. DE C.V.

**CERTIFICADO DE CALIDAD  
DE PRUEBAS FISICAS-QUIMICAS**  
QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: **7<sup>ta</sup> COTA**  
CUSTOMER:  
PEDIDO CLIENTE / O.J.:  
PEDIDO INTERNO / I.O.:  
PARTIDA (S)  
ITEMS  
16796-30

NUMERO PTM-46818-1-2001  
FECHA DATE  
MAYO 02, 2001

TAMANO 10 3/4" ESPESOR DE PARED 0.307" GRADO: ASTM A53-B  
WALL THICKNESS GRADE: ASTM A53-B  
PRESION HIDROSTATICA: 1200 PSI  
ANALISIS QUIMICO: % EN PESO 94 Kg/cm<sup>2</sup>

**PRUEBAS DE TENSION**  
TENSILE & TEST


**ANALISIS QUIMICO: % EN PESO**  
CHEMICAL ANALYSIS PERCENT WEIGHT

IDENTIFICACION DESCRIPTION	COLUMNA HEAT	LIMITE ELASTICO YIELD STRENGTH (PALL)	ULTIMA TENSION TENSILE STRENGTH (PALL)	% ELONGACION ELONGATION 2"	ELONGACION ELONGATION 50%	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
12-1 TC Ts	107998	53 853	68 832 73 801	38	0.78	0.160	0.92	0.019	0.006	-	-	-	0.243	0.021	0.035	0.0017	0.027	0.042	-	0.0066	-
15-22 TC Ts	107962	54 185	68 924 73 478	39	0.79	0.145	0.93	0.017	0.008	-	-	-	0.228	0.018	0.050	0.0036	0.020	0.037	-	0.0055	-
4-17 TC Ts	207863	54 212	67 963 74 878	41	0.80	0.142	0.94	0.015	0.005	-	-	-	0.173	0.014	0.047	0.0024	0.020	0.026	-	0.0053	-
11-9 TC Ts	207865	53 170	67 830 73 513	39	0.78	0.144	0.93	0.017	0.007	-	-	-	0.205	0.015	0.040	0.0036	0.023	0.029	-	0.0062	-
6-19 TC Ts	207891	54 967	67 939 73 328	40	0.81	0.137	0.88	0.015	0.007	-	-	-	0.199	0.012	0.042	0.0047	0.018	0.025	-	0.0057	-

CERTIFICAMOS QUE LA TUBERIA AQUI 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

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