



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

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

CLIENTE: TUCOTIA  
 CUSTOMER:  
 PEDIDO CLIENTE / P.O. 10041  
 PEDIDO INTERNO / I.O.  
 PARLIDA (S) 32944-40  
 TIENS  
 NUMERO PTM-54373-1-2003  
 NUMBER  
 FECHA  
 DATE MARZO 19, 2003

DIAMETRO: 14" ESPESOR DE PARED 0.375" GRADO: ASTM A53-B  
 WALL THICKNESS 0.375" GRADE: ASTM A53-B  
 PRESION HIDROSTATICA: 79 Kg/cm<sup>2</sup> 1120 PSI  
 HIDROSTATIC TEST: CHEMICAL ANALYSIS PERCENT WEIGHT

NOM/PROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 2"	LEAIT V.975	CHEMICAL ANALYSIS PERCENT WEIGHT														
						C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N
16-2 TC	121136	55 950	64 071	38	0.87	0.143	0.83	0.017	0.009	-	-	0.176	0.016	0.039	0.0005	0.017	0.029	-	-	
Ts			68 454																	
27-9 TC	121168	55 173	64 685	42	0.85	0.142	0.83	0.018	0.006	-	-	0.217	0.014	0.045	0.0027	0.015	0.024	-	-	
Ts			68 633																	

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 A53-B -99

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