

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

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

CLIENTE: TUCOTA  
 CUSTOMER:  
 PEDIDO CLIENTE / P.O. 8287  
 PEDIDO INTERNO / I.O.  
 PARTIDA(S) 6457-10 / 7485-10  
 ITEMS  
 PESON HIDROSTATICA /  
 HIDROSTATIC TEST:  
 93 Kg/cm<sup>2</sup> 1320 PSI  
 NUMERO PTAI-50781-1-2002  
 NUMBER  
 FECHA ENERO 14, 2002  
 DATE

DIAMETRO: 20" ESPESOR DE PARED: 0.281" GRADO: API 5L X-52  
 DIAMETER: 20" WALL THICKNESS: 0.281" GRADE: API 5L X-52

**PRUEBAS DE TENSION  
 TENSILE TEST**


NUM/ROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 2"	LEU/T V.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
62-2 Tc	101267	63 839	70 803	39	0.90	0.080	1.17	0.012	0.006	0.017	0.002	-	0.200	0.030	0.047	0.0020	0.017	0.047	0.015	0.0050	
TS			74 671																		
80-13 Tc	101271	64 101	72 567	37	0.88	0.080	1.20	0.016	0.006	0.018	0.003	-	0.200	0.017	0.033	0.0020	0.029	0.026	0.013	0.0060	
TS			76 576																		
17-14 Tc	101963	67 964	75 357	39	0.90	0.090	1.27	0.015	0.008	0.015	0.003	-	0.200	0.019	0.042	0.0020	0.020	0.031	0.019	0.0050	
TS			80 737																		
22-13 Tc	201191	64 317	75 036	36	0.86	0.100	1.19	0.015	0.009	0.018	0.003	-	0.210	0.027	0.043	0.0020	0.026	0.031	0.015	0.0050	
TS			78 919																		

**CHEMICAL ANALYSIS PERCENT WEIGHT**

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:

API SPECIFICATION SL  
 FORTY-SECOND EDITION, JANUARY, 2000  
 EFFECTIVE DATE: JULY 1, 2000

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