



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	PTM-53084-2002
CUSTOMER:		NUMBER	
PEDIDO CLIENTE / P.O.	9437	FECHA	SEPTIEMBRE 17, 2002
PEDIDO INTERNO / I.O.		DATE	
PARTIDA (S)	29180-20 / 28565-50 / 29887-10		
ITEMS			

DIAMETRO: 16" ESPESOR DE PARED 0.375" GRABADO: ASTM A53-B  
 WALL THICKNESS 0.375" GRADE: ASTM A53-B  
 ANALISIS QUIMICO % EN PESO 69 Kg/cm<sup>2</sup> 980 PSI HOJA 1 DE 2  
 HIDROSTATICA TEST: PERISON HIDROSTATICA:

ITEMS	TENSILE TEST	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	REDUCED SECTION ELONGATION	CHARPY	CHEMICAL ANALYSIS PERCENT WEIGHT													
							C	Mn	P	S	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq	
157-5 Tc	117401	64 005	73 821	35	0.87	0.120	1.13	0.018	0.006	0.022	0.004	-	0.110	0.017	0.035	0.0022	0.017	0.028	0.010	0.0057
Ts			80 201																	
77-5 Tc	117403	59 108	70 830	40	0.83	0.104	1.20	0.016	0.004	0.022	0.004	-	0.143	0.020	0.045	0.0026	0.018	0.021	0.005	0.0055
Ts			75 846																	
170-12 Tc	117404	64 153	75 087	38	0.85	0.103	1.20	0.016	0.008	0.024	0.003	-	0.163	0.018	0.043	0.0031	0.014	0.024	0.005	0.0067
Ts			84 408																	
110-7 Tc	117410	63 858	71 571	35	0.89	0.098	1.11	0.014	0.007	0.020	0.003	-	0.161	0.014	0.037	0.0028	0.018	0.030	0.014	0.0070
Ts			75 257																	
23-12 Tc	117480	69 006	80 198	32	0.88	0.142	1.14	0.016	0.006	0.037	0.004	-	0.186	0.015	0.032	0.0029	0.014	0.020	0.004	0.0064
Ts			89 388																	
39-15 Tc	117657	62 790	71 759	35	0.88	0.082	1.18	0.015	0.007	0.022	0.004	-	0.135	0.015	0.044	0.0033	0.022	0.022	0.018	0.0058
Ts			78 896																	
47-8 Tc	117688	65 024	73 152	38	0.89	0.068	1.20	0.014	0.007	0.020	0.004	-	0.144	0.015	0.040	0.0028	0.022	0.025	0.017	0.0055
Ts			78 803																	
3-4 Tc	117659	66 516	73 347	36	0.91	0.077	1.12	0.017	0.009	0.022	0.004	-	0.137	0.021	0.032	0.0030	0.027	0.028	0.017	0.0057
Ts			78 350																	
67-9 Tc	117862	68 452	80 145	35	0.85	0.133	1.11	0.012	0.008	0.033	0.004	-	0.189	0.016	0.038	0.0035	0.020	0.023	0.017	0.0058
Ts			84 231																	
205-14 Tc	117841	68 780	77 910	35	0.86	0.076	1.19	0.014	0.008	0.021	0.003	-	0.121	0.014	0.030	0.0030	0.016	0.022	0.018	0.0062
Ts			83 584																	
179-7 Tc	117842	62 841	71 038	37	0.88	0.089	1.11	0.014	0.008	0.020	0.004	-	0.115	0.013	0.029	0.0031	0.017	0.022	0.018	0.0052
Ts			74 817																	
148-14 Tc	117843	65 053	73 727	36	0.88	0.094	1.12	0.018	0.009	0.021	0.004	-	0.141	0.017	0.023	0.0037	0.026	0.028	0.018	0.0051
Ts			75 205																	
138-11 Tc	117844	62 305	71 467	36	0.87	0.082	1.20	0.018	0.009	0.020	0.003	-	0.114	0.015	0.023	0.0034	0.024	0.028	0.017	0.0042
Ts			78 884																	
180-14 Tc	117845	67 610	73 820	36	0.91	0.085	1.11	0.018	0.008	0.018	0.005	-	0.107	0.013	0.020	0.0036	0.021	0.024	0.015	0.0049
Ts			77 743																	
16-6 Tc	218954	62 591	71 828	37	0.87	0.099	1.14	0.014	0.007	0.021	0.003	-	0.134	0.011	0.036	0.0025	0.008	0.021	0.003	0.0072
Ts			78 324																	

CERTIFICAMOS QUE LA TUBERIA ACUÍ DESCRITA CUMPLE Y HA SIDO FABRICADA INDEBIDAMENTE, 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:

ING. FERNANDO GARRIDO JEREZ  
GERENTE DE ASEGURAMIENTO DE CALIDAD  
QUALITY ASSURANCE MANAGER