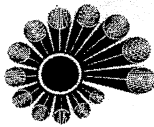


FLM-005-7



PROCARSA, S.A. DE C.V.

**CERTIFICADO DE CALIDAD  
DE PRUEBAS FISICAS-QUIMICAS**

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: PLESA ANAHUAC Y CIAS. S.A. DE C.V.

CUSTOMER:

NUMERO PTM-74010-2009  
NUMBER

PEDIDO CLIENTE /P.O.

PEDIDO INTERNO /I.O. 2110

FECHA  
DATE FEBRERO 13, 2009

PARTIDA (S)

ITEMS 80025-40 / 95014-30 / 100596-110 / 75480-50

DIAMETRO: ESPESOR DE PARED GRADO: PRESION HIDROSTATICA:  
DIAMETER: 16" WALL THICKNESS 0.375" GRADE: ASTM A53-B HIDROSTATIC TEST: 69 Kg/cm<sup>2</sup> 980 PSI

**PRUEBAS DE TENSION  
TENSILE TEST**
**ANALISIS QUIMICO % EN PESO  
CHEMICAL ANALYSES PERCENT WEIGHT**

NUM.PROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 2"	LE/UT Y.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
88-6 Tc	170246	53 804	69 565	38	0.77	0.131	0.79	0.012	0.007	0.001	0.002	0.005	0.300	0.010	0.041	0.0028	0.020	0.020	0.006	0.0070	
Ts			70 237																		
31-15 Tc	183348	62 263	73 327	37	0.85	0.084	0.65	0.008	0.004	0.032	0.003	0.004	0.219	0.230	0.034	0.0013	0.030	0.030	0.006	0.0061	
Ts			76 513																		
12-13 Tc	183349	65 095	72 952	35	0.89	0.090	0.64	0.009	0.004	0.031	0.003	0.004	0.219	0.210	0.049	0.0022	0.020	0.020	0.004	0.0060	
Ts			77 701																		
20-4 Tc	183351	61 005	71 233	36	0.86	0.076	0.65	0.012	0.003	0.033	0.003	0.004	0.243	0.220	0.027	0.0022	0.020	0.020	0.005	0.0079	
Ts			78 704																		
23-16 Tc	183352	59 643	71 950	30	0.83	0.078	0.64	0.011	0.004	0.033	0.002	0.004	0.200	0.210	0.050	0.0012	0.020	0.020	0.005	0.0050	
Ts			75 670																		
88-9 Tc	187290	62 854	69 442	39	0.90	0.061	1.17	0.016	0.004	0.018	0.003	0.007	0.223	0.020	0.034	0.0031	0.020	0.020	0.005	0.0064	
Ts			72 185																		
2-4 Tc	264742	61 122	69 308	39	0.88	0.067	0.65	0.010	0.004	0.030	0.003	0.004	0.190	0.270	0.038	0.0027	0.020	0.030	0.005	0.0054	
Ts			75 967																		
25-11 Tc	267623*	48 963	60 873	40	0.80	0.126	0.79	0.013	0.008	0.002	0.004	0.003	0.141	0.040	0.029	0.0035	0.030	0.030	0.014	0.0062	
Ts			70 320																		
47-12 Tc	286985	63 273	74 450	36	0.84	0.083	1.16	0.012	0.005	0.021	0.004	0.008	0.231	0.040	0.041	0.0019	0.010	0.020	0.006	0.0077	
Ts			76 008																		
80-8 Tc	286987	61 879	70 142	40	0.88	0.074	1.18	0.015	0.006	0.021	0.005	0.010	0.225	0.040	0.038	0.0024	0.020	0.030	0.007	0.0065	
Ts			75 870																		
76-4 Tc	286988	61 985	70 865	38	0.87	0.068	1.17	0.013	0.004	0.021	0.003	0.007	0.238	0.040	0.027	0.0024	0.020	0.030	0.006	0.0067	
Ts			76 924																		
63-5 Tc	286991	64 414	71 473	40	0.90	0.066	1.19	0.018	0.004	0.022	0.005	0.006	0.216	0.040	0.025	0.0030	0.020	0.030	0.007	0.0061	
Ts			76 824																		
43-9 Tc	286993	62 552	75 171	37	0.83	0.062	1.19	0.018	0.004	0.022	0.005	0.007	0.231	0.050	0.034	0.0026	0.020	0.030	0.008	0.0044	
Ts			76 158																		
44-10 Tc	286994	63 265	70 138	38	0.90	0.070	1.18	0.012	0.003	0.020	0.005	0.006	0.230	0.040	0.035	0.0023	0.010	0.020	0.006	0.0060	
Ts			77 754																		

CERTIFICAMOS QUE LA TUBERIA AQUÍ DESCRITA CUMPLE Y HA SIDO  
FABRICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO  
CON LOS REQUISITOS APLICABLES DE LA ESPECIFICACION:

ASTM A53-B -06

WE CERTIFY THE PIPE ABOVE MENTIONED ACCOMPLISH AND HAS  
BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN  
ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SPECIFICATIONS:

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