



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:
 PEDIDO CLIENTE / P.O.
 PEDIDO INTERNO / I.O. 2573
 PARTIDA (S)
 ITEMS APM-01-09

NUMERO PTM-75680-2009
 NUMBER

FECHA
 DATE SEPTIEMBRE 17, 2009

DIAMETRO : ESPESOR DE PARED GRADO : PRESION HIDROSTATICA:
 DIAMETER: 12 3/4" WALL THICKNESS 0.406" GRADE: ASTM A53-B HIDROSTATIC TEST: 94 Kg/cm² 1340 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
37-14 Tc Ts	ZA11298	72 201	81 828 84 526	30	0.88	0.170	1.11	0.014	0.002	0.022	0.001	0.003	0.353	0.020	0.042	0.002	0.020	0.030	0.005	0.0060	
10-14 Tc Ts	ZA11301	70 671	81 429 86 462	30	0.86	0.170	1.09	0.015	0.002	0.022	0.001	0.002	0.352	0.020	0.050	0.001	0.030	0.020	0.004	0.0053	
23-6 Tc Ts	ZA11303	72 790	82 640 86 826	33	0.88	0.180	1.10	0.016	0.002	0.024	0.001	0.003	0.361	0.020	0.031	0.002	0.050	0.030	0.021	0.0064	
129-9 Tc Ts	ZA11305	70 419	81 128 85 678	35	0.86	0.160	1.10	0.019	0.002	0.021	0.001	0.002	0.366	0.020	0.039	0.002	0.040	0.040	0.009	0.0041	
38-12 Tc Ts	ZA11307	71 499	79 609 84 892	35	0.89	0.170	1.09	0.015	0.002	0.021	0.001	0.003	0.369	0.020	0.044	0.001	0.030	0.020	0.005	0.0058	
43-14 Tc Ts	RA980266	70 032	84 295 88 737	33	0.83	0.160	1.06	0.014	0.002	0.020	0.001	0.006	0.315	0.009	0.041	0.002	0.018	0.020	0.000	0.0056	
20-14 Tc Ts	RA980268	68 924	81 817 87 692	35	0.84	0.170	1.09	0.015	0.002	0.018	0.001	0.004	0.289	0.008	0.039	0.003	0.020	0.020	0.000	0.0045	
16-4 Tc Ts	RA980270	66 552	79 927 85 982	38	0.83	0.170	1.13	0.013	0.003	0.021	0.002	0.005	0.300	0.012	0.034	0.003	0.024	0.020	0.000	0.0049	
41-10 Tc Ts	RA980271	68 969	77 529 83 770	34	0.88	0.190	1.10	0.012	0.003	0.019	0.002	0.005	0.321	0.012	0.036	0.003	0.026	0.019	0.000	0.0038	
9-12 Tc Ts	RA980272	65 393	77 602 84 445	36	0.84	0.200	1.12	0.013	0.003	0.020	0.002	0.005	0.330	0.014	0.036	0.003	0.027	0.020	0.001	0.0039	
135-5 Tc Ts	RA980274	65 062	76 468 83 520	35	0.85	0.180	1.04	0.015	0.002	0.018	0.002	0.005	0.308	0.011	0.035	0.003	0.028	0.020	0.000	0.0032	
11-7 Tc Ts	RA980275	71 045	82 801 81 395	35	0.85	0.170	1.15	0.016	0.003	0.018	0.002	0.006	0.293	0.016	0.033	0.002	0.029	0.020	0.000	0.0038	

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 -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