



PLM-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: PTM-73710-1-2009

FECHA: ENERO 08, 2009
 PEDIDO INTERNO / I.O. 2080

ITEMS: 90449-20 / 95660-20

GRADO: GRADO: ASTM A53-B

ESPOSOR DE PARED: 0.312" WALT THICKNESS

DIAMETRO: 16" GRADE: PRESSION HIDROSTATICA: 820 PSI

PRUEBAS DE TENSION

TENSILE TEST

NUM. PROBETA	COLADA	HEAT	DESCRIPTION
3-5 TC	175292	53 834	64 381
9-7 TC	175293	53 146	64 082
16-7 TC	175296	54 247	62 927
5-5 TC	275194	55 698	65 527
4-1 TC	284173	62 736	70 578
2-9 TC	284174	60 804	71 471

ULTIMA TENSION (P.S.I.)	TENSILE STRENGTH (P.S.I.)	% ELONG.	LE/UT Y.S.T.S.	C	Mn	P	S	Cb	V	Ti	SI	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
64 381	53 834	36	0.84	0.140	0.79	0.012	0.007	0.004	0.004	0.004	0.284	0.020	0.040	0.020	0.020	0.020	0.008	0.008	0.0058
69 287	53 146	34	0.83	0.110	0.76	0.015	0.004	0.001	0.004	0.005	0.271	0.020	0.040	0.020	0.020	0.030	0.003	0.0040	0.0071
69 554	54 247	35	0.86	0.132	0.79	0.009	0.005	0.004	0.004	0.005	0.300	0.030	0.049	0.020	0.020	0.030	0.008	0.0071	0.0061
69 366	55 698	34	0.85	0.145	0.79	0.014	0.008	0.004	0.004	0.005	0.303	0.010	0.033	0.020	0.020	0.020	0.007	0.0061	0.0069
68 711	62 736	38	0.88	0.083	1.15	0.013	0.003	0.020	0.005	0.012	0.343	0.010	0.036	0.020	0.020	0.020	0.006	0.0069	0.0064
75 213	70 578	36	0.85	0.090	1.17	0.012	0.004	0.019	0.004	0.008	0.300	0.030	0.029	0.020	0.020	0.020	0.007	0.0064	0.0064

ANALISIS QUIMICO % EN PESO
 CHEMICAL ANALYSES 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:

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