



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.

NUMERO PTM-75574-2009

CUSTOMER:

NUMBER

PEDIDO CLIENTE / P.O.

PEDIDO INTERNO / I.O. 2499

FECHA

PARTIDA (S)

DATE AGOSTO 21, 2009

ITEMS 92322-10 / 90449-20

DIAMETRO :

ESPEJOR DE PARED

GRADO :

PRESION HIDROSTATICA:

DIAMETER : 16"

WALL THICKNESS 0.312"

GRADE : ASTM A53-B

HIDROSTATIC TEST: 58 Kg/cm² 820 PSI

PRUEBAS DE TENSION

ANALISIS QUIMICO % EN PESO

TENSILE TEST

CHEMICAL ANALYSES PERCENT WEIGHT

NUM PROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. I"	LE/UT Y/ST	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
3-5 Tc	175292	53 834	64 381	36	0.84	0.140	0.79	0.012	0.007	0.004	0.004	0.004	0.284	0.020	0.040	0.0027	0.020	0.020	0.008	0.0058	
Ts			69 287																		
9-7 Tc	175293	53 146	64 082	34	0.83	0.110	0.76	0.015	0.004	0.001	0.004	0.005	0.271	0.020	0.040	0.0016	0.020	0.020	0.003	0.0040	
Ts			69 554																		
16-7 Tc	175296	54 247	62 927	35	0.86	0.132	0.79	0.009	0.005	0.004	0.004	0.005	0.300	0.030	0.049	0.0020	0.020	0.030	0.008	0.0071	
Ts			69 366																		
15-3 Tc	175297	53 744	63 496	35	0.85	0.126	0.79	0.010	0.007	0.003	0.004	0.005	0.284	0.020	0.045	0.0020	0.020	0.020	0.007	0.0051	
Ts			68 328																		
12-6 Tc	175371	54 786	64 428	35	0.85	0.136	0.83	0.013	0.006	0.003	0.005	0.005	0.314	0.010	0.040	0.0022	0.010	0.020	0.008	0.0049	
Ts			67 147																		
11-11 Tc	179266	69 382	82 948	31	0.84	0.098	1.10	0.019	0.005	0.058	0.005	0.006	0.182	0.020	0.028	0.0022	0.020	0.030	0.009	0.0049	
Ts			87 306																		
2-9 Tc	273841	72 131	88 743	30	0.81	0.099	1.17	0.016	0.004	0.050	0.002	0.008	0.198	0.040	0.037	0.0025	0.030	0.030	0.009	0.0040	
Ts			87 979																		
5-5 Tc	275194	55 698	65 527	34	0.85	0.145	0.79	0.014	0.008	0.003	0.004	0.005	0.303	0.010	0.033	0.0029	0.020	0.020	0.007	0.0061	
Ts			68 711																		

CERTIFICAMOS QUE LA TUBERIA AQUÍ 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:

ASTM -06


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