

FLM-005-7

PROCARSA, S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE:	PLESA AVAHI/AC Y GAS, S.A. DE C.V.	PROCESO:	PTM-14668-2009
CUSTOMER:		NUMBER:	
CLIENTE N/O:	2120	FECHA:	ABRIL 22, 2009
ORDEN INTERNO/ I.O.:		DATE:	
PARTIDA (S):	8976-110 / 91652-10 / 65960-10		
ITEMS:			

DIAMETRO: 20"

ESPESSOR DE PARED
WALL THICKNESS

0.250"

GRADO:

ASTM A53-B

PRUEBAS HIDROSTATICAS:
HYDROSTATIC TEST

37 Kg/cm²

570 PSI

**PRUEBAS DE TENSION
TENSILE TEST**

IDENTIFICACION	COLADA CAST	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. %	LONG. INCH	C	Mn	P	S	Co	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mg	N	Ceq
7-15 TC TS	172849	43 847	65 012	37	0.67	0.120	0.79	0.013	0.006	0.002	0.001	0.003	0.300	0.027	0.036	0.003	0.023	0.021	0.005	0.0050	
2-12 TC TS	178280	44 382	71 199	38	0.70	0.129	0.79	0.013	0.006	0.002	0.003	0.004	0.301	0.020	0.036	0.003	0.020	0.030	0.008	0.0061	
10-8 TC TS	253588	49 340	68 751	39	0.70	0.176	1.08	0.017	0.006	0.003	0.005	0.004	0.190	0.020	0.041	0.002	0.030	0.030	0.004	0.0053	
3-18 TC TS	272457	43 540	75 259	39	0.67	0.130	0.80	0.013	0.005	0.001	0.002	0.002	0.280	0.018	0.037	0.003	0.021	0.021	0.003	0.0035	
9-10 TC TS	278201	44 077	73 663	39	0.70	0.119	0.78	0.015	0.007	0.004	0.002	0.003	0.282	0.031	0.035	0.003	0.022	0.023	0.007	0.0045	
3-18 TC TS	278207	44 373	62 810	40	0.68	0.128	0.81	0.014	0.008	0.003	0.003	0.004	0.298	0.020	0.020	0.002	0.030	0.030	0.007	0.0056	
			64 997																		
			74 376																		

CHEMICAL ANALYSIS PERCENT WEIGHT

CERTIFICAMOS QUE LA TUBERIA ACU 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 A53-B-06

ING. GUILLERMO OSORIO PEREZ
GERENTE DE ASIGURAMIENTO DE CALIDAD
QUALITY ASSURANCE MANAGER



ELM-405-7
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. **NUMERO** PTM-74667-1-2009
 CUSTOMER: **FECHA** ABRIL 22, 2009
 PEDIDO CLIENTE / P.O. 2304
 PEDIDO INTERNO / I.O. **ITEMS**
 PARTIDA (S) 93259-98
 PRESION HIDROSTATICA: 56 Kg/cm² 790 PSI
 HIDROSTATIC TEST: ANALISIS QUIMICO % EN PESO


DIAMETRO: 2" **ESPESOR DE PARED** 0.375" **GRADO:** ASTM A53-B
DIAMETER: 2" **WALL THICKNESS** 0.375" **ASTM A53-B**

DESCRIPCION	COLADA MAY	LARGO ELASTICO YIELD STRENGTH (PSI)	ULTIMA TENSION TENSILE STRENGTH (PSI)	% ELONG. ELONG.	LARGO YIELD	CHEMICAL ANALYSIS PERCENT WEIGHT															
						C	Min	P	S	Cb	V	Ti	Si	Ca	Al	Cr	Ni	Mo	N	Ceq	
12-11 TC TS	179741	53 490	85 396 89 987	39	0.81	0.150	0.81	0.017	0.008	0.003	0.004	0.005	0.300	0.020	0.031	0.002	0.020	0.030	0.009	0.0049	
8-13 TC TS	179742	54 627	88 464 88 708	40	0.79	0.132	0.80	0.014	0.007	0.001	0.003	0.004	0.298	0.020	0.032	0.002	0.020	0.020	0.006	0.0051	

CERTIFICAMOS QUE LA TUBERIA ACUÍ 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 ACCORPLISH AND HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SPECIFICATIONS:

ASTM A53-B-98


 ING. FERNANDO CORTES
 GERENTE DE ASEGURAMIENTO DE CALIDAD
 QUALITY ASSURANCE MANAGER