



FLM-005-7

PROCARSA, S.A. DE CV.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: PLESA ANABUAC Y CIAS. S.A. DE CV.

CUSTOMER:

pedido cliente / P.O. 1811

pedido interno / I.O. PARTIDA (S) 89392-10

NUMERO: FTM-71445C-2008

NUMBER

FECHA: SEPTIEMBRE 15, 2008

DATE

DIAMETRO: 16" ESPESOR DE PARED: 0.590" GRADO: ASTM A53-B PRESION HIDROSTATICA: 92 Kg/cm² 1310 PSI


PRUEBAS DE TENSION

NUMEROS DE IDENTIFICACION	COLADA	LIMITE ELASTICO (PSI)	ULTIMA TENSION (PSI)	% ELONG. EN 2"	TEST VALUE	ANALISIS QUIMICO % EN PESO														
						C	Mn	P	S	CB	V	TI	SI	Cu	Al	Ca	Cr	Ni	Mo	N
14-8 TC TS	275093	65 108	72 271 75 415	36	0.90	0.078	0.58	0.013	0.004	0.033	0.003	0.004	0.189	0.210	0.034	0.0016	0.010	0.030	0.004	0.0045

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

ASTM A53-B-08

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


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



FLM-405-1

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** PFM-7245-2008
 CUSTOMER: **FECHA** SEPTEMBER 15, 2008
 PEDIDO CLIENTE / P.O. 1811
 PEDIDO INTERNO / I.O. PARTIDA (S) 79946-10 / 94430-30 / 73770-10
 PRESSION HIDROSTATICA: 92 Kg/cm² 1310 PSI

DIAMETRO: 16" **ESPESOR DE PARED** 4.500" **GRADO:** **ASTM A53-B**
 DIAMETER: 16" **WALL THICKNESS** 0.178" **GRADE:** **ASTM A53-B**

DESCRIPCION	CORRUDA	LIMITE ELASTICO (MPa)	ULTIMA TENSION (MPa)	% ELONGACION	LIMITE SUPERIOR	C	Mn	P	S	Cb	V	Ti	ANALISIS QUIMICO % EN PESO									
													SI	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq	
36-3 Tg	170214	62 304	74 306	37	0.84	0.165	1.04	0.017	0.004	0.010	0.005	0.005	0.294	0.010	0.029	0.0028	0.020	0.020	0.007	0.0058		
75-12 Tc	170221	73 015	78 114	30	0.90	0.168	1.02	0.017	0.007	0.011	0.002	0.005	0.270	0.020	-0.029	0.0022	0.030	0.020	0.007	0.0084		
26-12 Tc	170224	75 550	82 688	30	0.89	0.180	1.03	0.011	0.010	0.009	0.003	0.003	0.250	0.030	0.034	0.0023	0.030	0.040	0.009	0.0077		
42-11 Tc	170225	65 060	84 544	35	0.85	0.175	1.06	0.012	0.007	0.010	0.002	0.005	0.306	0.040	0.041	0.0031	0.030	0.030	0.009	0.0077		
19-11 Tc	182262	47 965	76 702	42	0.73	0.122	0.79	0.013	0.005	0.001	0.002	0.004	0.294	0.020	0.043	0.0023	0.020	0.020	0.005	0.0050		
21-12 Tc	182264	49 878	85 152	41	0.76	0.124	0.79	0.013	0.008	0.003	0.004	0.005	0.300	0.020	0.041	0.0024	0.020	0.030	0.009	0.0054		
140-6 Tc	263710	58 283	65 607	38	0.79	0.173	1.08	0.014	0.009	0.010	0.004	0.003	0.303	0.030	0.043	0.0030	0.020	0.030	0.006	0.0076		
6-12 Tc	270230	75 925	81 240	30	0.90	0.170	1.04	0.016	0.005	0.010	0.003	0.005	0.320	0.030	0.036	0.0026	0.020	0.020	0.008	0.0054		

CERTIFICAMOS QUE LA TUBERIA AQUI DESCRITA CUMPLE Y HA SIDO FABRICADA, MUESTREADA, PROMADA 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:


 M.C. EERRANDO OSORIO PEREZ
 GERENTE DE ASEGURAMIENTO DE CALIDAD
 QUALITY ASSURANCE MANAGER

ASTM A53-B-06