



EL-M005-7

PROCARSA S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: PLENAMAR Y CUYA S.A. DE C.V.  
 CU STORE:  
 PEDIDO CLIENTE / P.O. 920  
 PEDIDO INTERNO / I.O.  
 PARTIDA(S)  
 48570-10 / 64463-10 / 71071-10

NUMERO: P1M-69401-2007  
 NUMBER  
 FECHA: OCTUBRE 31, 2007  
 DATE

DIAMETRO: 14"  
 ESPESOR DE PARED: 0.312"  
 WALL THICKNESS

GRADO: 0.312"

ASTM A53-B

ASTM A53-B

PRESSION HIDROSTATICA:

66 Kg/cm<sup>2</sup>

940 PSI

CHEMICAL ANALYSES PERCENT WEIGHT

NUMERO DE TUBERIA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (#SL)	ULTIMA TENSION TENSILE STRENGTH (#SL)	% ELONG 2"	LEWT YSTS	C	Min	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
17-12 TC TS	135540	68 358	82 471 87 088	34	0.83	0.089	1.16	0.018	0.004	0.044	0.003	0.009	0.199	0.018	0.037	0.0017	0.012	0.029	0.006	0.0086	
9-14 TC TS	151923	76 675	82 075 85 994	36	0.93	0.102	1.11	0.015	0.003	0.046	0.004	0.010	0.210	0.040	0.039	0.0020	0.030	0.040	0.011	0.0056	
3-6 TC TS	151924	76 253	83 878 85 874	37	0.91	0.120	1.11	0.015	0.004	0.046	0.004	0.011	0.220	0.030	0.038	0.0015	0.020	0.040	0.009	0.0071	
3-18 TC TS	235266	69 750	82 058 86 696	30	0.85	0.097	1.11	0.018	0.005	0.045	0.005	0.007	0.195	0.019	0.046	0.0018	0.016	0.025	0.011	0.0055	
23-11 TC TS	262800	68 844	78 837 81 502	34	0.87	0.088	1.11	0.016	0.004	0.044	0.003	0.006	0.200	0.020	0.034	0.0034	0.020	0.030	0.006	0.0083	
6-11 TC TS	262804	69 175	82 564 84 999	33	0.84	0.102	1.11	0.014	0.007	0.049	0.003	0.007	0.171	0.040	0.035	0.0025	0.020	0.030	0.007	0.0038	
40-20 TC TS	262805	66 110	77 712 84 187	34	0.85	0.087	1.12	0.018	0.006	0.042	0.005	0.010	0.185	0.030	0.040	0.0033	0.030	0.030	0.006	0.0057	
18-21 TC TS	262810	69 302	78 952 87 477	36	0.88	0.088	1.13	0.015	0.005	0.044	0.003	0.009	0.190	0.040	0.032	0.0025	0.020	0.030	0.007	0.0049	

CERTIFICAMOS QUE LA TUBERIA AQUI 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. FERNANDO OSORIO PEREZ

GERENTE DE ASESURAMIENTO DE CALIDAD

QUALITY ASSURANCE MANAGER