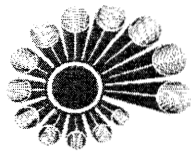


FLM-005-7



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.

NUMERO PTM-78814-2011

CUSTOMER:

NUMBER

PEDIDO CLIENTE /P.O.

PEDIDO INTERNO / I.O. 3278

FECHA

DATE MARZO 02, 2011

PARTIDA (S)

ITEMS 115182-10 / 116746-50

DIAMETRO : DIAMETER : 16"	ESPESOR DE PARED WALL THICKNESS 0.500"	GRADO : GRADE : ASTM A53-B	PRESION HIDROSTATICA: HIDROSTATIC TEST: 92 Kg/cm <sup>2</sup> 1310 PSI
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**PRUEBAS DE TENSION  
TENSILE TEST**
**ANALISIS QUIMICO % EN PESO  
CHEMICAL ANALYSES PERCENT WEIGHT**

NUM.PROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 2"	LE/UT Y.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
3-10 Tc Ts	109337	78 363	85 164 79 591	32	0.92	0.062	0.96	0.015	0.004	0.044	0.032	0.005	0.239	0.241	0.050	0.0023	0.024	0.019	0.008	0.0066	
13-10 Tc Ts	209504	67 032	72 955 77 520	30	0.91	0.055	0.65	0.012	0.005	0.032	0.003	0.003	0.192	0.234	0.042	0.0024	0.016	0.018	0.005	0.0070	
2-5 Tc Ts	209505	65 429	73 675 75 223	34	0.88	0.050	0.64	0.015	0.004	0.034	0.003	0.003	0.179	0.222	0.039	0.0029	0.017	0.018	0.006	0.0071	
14-11 Tc Ts	209506	61 199	72 884 77 758	43	0.83	0.067	0.65	0.014	0.004	0.031	0.003	0.003	0.187	0.229	0.041	0.0027	0.017	0.019	0.005	0.0078	

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

ASTM -06

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

ING. ALEJANDRO ALARCON CAZARES  
SUPERVISOR DE LABORATORIO METALURGICO  
METALLURGICAL LABORATORY SUPERVISOR