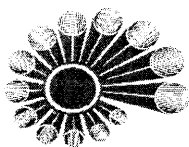


FLM-005-7



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.

CUSTOMER:

NUMERO PTM-78970-2011

NUMBER

PEDIDO CLIENTE / P.O.

PEDIDO INTERNO / I.O. 3454

FECHA

DATE MARZO 30, 2011

PARTIDA (S)

ITEMS 117382-50

DIAMETRO :

DIAMETER : 10 3/4"

ESPESOR DE PARED

WALL THICKNESS

0.365"

GRADO :

GRADE :

ASTM A53-B

PRESION HIDROSTATICA:

HIDROSTATIC TEST:

101 Kg/cm²

1,430 PSI

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/U.T Y.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
15-13 Tc Ts	110957	53 513	64 525 69 311	43	0.82	0.106	0.79	0.010	0.008	0.002	0.003	0.002	0.224	0.035	0.040	0.003	0.015	0.030	0.009	0.0015	
10-5 Tc Ts	110958	57 425	65 198 71 394	40	0.88	0.100	0.77	0.015	0.005	0.001	0.004	0.003	0.255	0.034	0.036	0.003	0.019	0.034	0.008	0.0045	
20-6 Tc Ts	210796	55 196	65 192 70 746	44	0.84	0.100	0.78	0.014	0.004	0.002	0.003	0.003	0.228	0.038	0.031	0.003	0.019	0.038	0.010	0.0043	
8-10 Tc Ts	210801	55 113	67 649 73 630	43	0.81	0.105	0.81	0.015	0.006	0.002	0.002	0.003	0.243	0.016	0.043	0.003	0.017	0.018	0.005	0.0040	
19-11 Tc Ts	210805	56 283	68 458 71 349	41	0.82	0.118	0.79	0.012	0.007	0.002	0.002	0.004	0.239	0.100	0.041	0.002	0.021	0.021	0.006	0.0057	

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. LUIS ALFONSO DE LOS SANTOS RIVERA
SUPERVISOR DE LABORATORIO METALURGICO
METALLURGICAL LABORATORY SUPERVISOR