

FLM-005-7

PROCARSA, S.A. DE C.V.

**CERTIFICADO DE CALIDAD
DE PRUEBAS MECANICAS Y ANALISIS QUIMICO**

QUALITY CERTIFICATE OF MECHANICAL TESTS AND CHEMICAL ANALYSES

CLIENTE: PLESA ANAHUAC Y CIAS. S.A. DE C.V.

CUSTOMER:

PEDIDO CLIENTE / P.O.

PEDIDO INTERNO / I.O. 15431

PARTIDA (S)

ITEMS 116746-30 / 510579-10

NUMERO

PTM-02801-1-2012

NUMBER

FECHA

DATE

DICIEMBRE 10, 2012

DIAMETRO EXTERIOR :

12 3/4"

ESPEJOR DE PARED :

0.500"

GRADO :

ASTM A53-B

PRESION HIDROSTATICA:

116 Kg/cm² 1,650 PSI

OUTSIDE DIAMETER :

WALL THICKNESS :

GRADE :

HIDROSTATIC TEST:

REQUERIMIENTOS DE PRUEBAS DE TENSION / TENSILE TEST REQUIREMENTS

REQUERIMIENTOS DE ANALISIS QUIMICO % EN PESO / CHEMICAL ANALYSES BY PERCENTAGE OF WEIGHT REQUIREMENTS

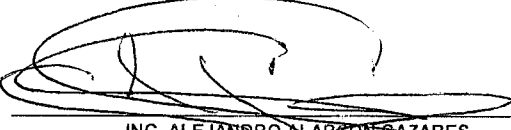
LIMITE ELASTICO / YIELD STRENGTH	ULTIMA TENSION / TENSILE STRENGTH	% ELONG.	L.E./U.T.	C	Mn	P	S	Cb	Cb+V	Cb+V+Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	CE IIW	CE
35000 PSI MIN.	60000 PSI MIN.	30 min.	---	0.300 max	1.200 max	0.050 max	0.045 max	---	---	---	---	0.500 max	---	---	0.400 max	0.400 max	0.150 max	---	---	---

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	CE IIW	CE
22-12 Tc Ts	107843	71 600	77 008 75 980	36	0.92	0.060	0.65	0.013	0.004	0.032	0.0040	0.004	0.200	0.210	0.043	0.003	0.020	0.020	0.007	0.0076		
44-9 Tc Ts	109896	72 043	77 067 76 081	35	0.93	0.056	0.66	0.015	0.004	0.033	0.0030	0.003	0.202	0.239	0.028	0.003	0.023	0.020	0.010	0.0071		
4-3 Tc Ts	116998	70 014	77 333 83 987	34	0.90	0.064	0.65	0.010	0.004	0.031	0.0020	0.003	0.193	0.229	0.026	0.002	0.018	0.024	0.007	0.0063		
17-13 Tc Ts	209356	70 078	75 446 75 721	39	0.92	0.056	0.70	0.016	0.003	0.034	0.0040	0.003	0.202	0.219	0.032	0.003	0.022	0.020	0.007	0.0064		
1-4 Tc Ts	209361	70 479	75 510 77 904	32	0.93	0.068	0.65	0.015	0.003	0.033	0.0020	0.003	0.184	0.213	0.020	0.003	0.014	0.017	0.010	0.0073		
16-9 Tc Ts	209362	70 070	78 051 75 807	35	0.89	0.058	0.65	0.013	0.003	0.031	0.0030	0.003	0.189	0.215	0.031	0.002	0.014	0.018	0.005	0.0070		
4-2 Tc Ts	209364	68 405	77 370 76 800	40	0.88	0.056	0.66	0.017	0.003	0.033	0.0030	0.004	0.195	0.228	0.034	0.003	0.022	0.017	0.005	0.0053		
3-3 Tc Ts	218735	66 540	78 271 82 770	35	0.85	0.070	0.66	0.016	0.004	0.033	0.0040	0.005	0.189	0.231	0.034	0.003	0.021	0.029	0.007	0.0077		
8-3 Tc Ts	219690	69 271	80 040 82 594	34	0.86	0.067	0.64	0.017	0.005	0.035	0.0020	0.004	0.188	0.231	0.035	0.002	0.020	0.019	0.005	0.0053		

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 -10

WE CERTIFY THAT THE ABOVE DESCRIBED PIPE HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATION, AND MEETS THE APPLICABLE REQUIREMENTS THEREIN


ING. ALEJANDRO ALARCON CAZARES
JEFE DE LABORATORIO METALURGICO
METALLURGICAL LABORATORY CHIEF