



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. 15861
 PARTIDA (S)
 ITEMS 510920-40 / 105397-10 / 511243-80 / 103351-30 / T-20-12

NUMERO PTM-05022-2014
 NUMBER
 FECHA
 DATE NOVIEMBRE 24, 2014

DIAMETRO EXTERIOR : 8 5/8" ESPESOR DE PARED : 0.500" GRADO : ASTM A53-B PRESION HIDROSTATICA: 171 Kg/cm² 2,430 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 Pcm
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/UT Y.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	CE IIW	CE Pcm
1B-2 Tc Ts	118491	55 838	66 606 73 483	40	0.83	0.103	0.77	0.013	0.008	0.002	0.0020	0.003	0.242	0.024	0.035	0.002	0.025	0.023	0.004	0.0054		
2B-10 Tc Ts	193988	71 064	77 766 81 062	33	0.91	0.064	1.15	0.015	0.004	0.017	0.0033	0.007	0.261	0.023	0.029	0.003	0.027	0.021	0.005	0.0049		
8A-9 Tc Ts	219551	58 497	65 713 71 741	40	0.89	0.111	0.79	0.016	0.005	0.002	0.0020	0.004	0.229	0.027	0.035	0.002	0.017	0.017	0.005	0.0051		
2B-1 Tc Ts	219552	57 562	65 259 69 433	45	0.88	0.113	0.80	0.014	0.005	0.001	0.0030	0.004	0.242	0.032	0.036	0.003	0.014	0.016	0.004	0.0056		
10A-3 Tc Ts	219553	53 248	64 548 70 433	45	0.82	0.111	0.79	0.014	0.006	0.001	0.0020	0.004	0.243	0.032	0.037	0.003	0.014	0.016	0.004	0.0054		
3B-9 Tc Ts	221719	60 719	70 895 75 141	36	0.85	0.047	0.64	0.011	0.004	0.034	0.0020	0.004	0.188	0.215	0.028	0.002	0.024	0.023	0.005	0.0048		
9B-10 Tc Ts	228779	69 260	77 140 78 075	36	0.89	0.060	0.64	0.012	0.003	0.033	0.0020	0.003	0.187	0.241	0.037	0.003	0.015	0.016	0.004	0.0053		
3A-8 Tc Ts	228780	69 027	75 669 79 318	34	0.91	0.062	0.63	0.013	0.003	0.032	0.0020	0.003	0.179	0.247	0.032	0.002	0.020	0.017	0.005	0.0055		
7B-10 Tc Ts	228781	65 326	77 007 73 861	31	0.84	0.050	0.62	0.011	0.004	0.033	0.0010	0.002	0.176	0.228	0.039	0.003	0.016	0.016	0.005	0.0055		
1A-7 Tc Ts	290603	61 210	66 425 71 167	44	0.92	0.131	0.79	0.015	0.006	0.002	0.0050	0.005	0.318	0.010	0.044	0.002	0.020	0.020	0.009	0.0057		
1B-7 Tc Ts	1221599012	55 755	67 607 75 059	35	0.82	0.141	0.85	0.008	0.002	0.001	0.0020	0.001	0.213	0.028	0.034	0.002	0.011	0.018	0.003	0.0037		
3B-7 Tc Ts	1231689012	59 677	68 571 73 073	38	0.87	0.135	0.82	0.012	0.002	0.001	0.0100	0.002	0.197	0.014	0.040	0.002	0.011	0.015	0.002	0.0041		

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