

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: S.A. DE C.V.

PEDIDO CLIENTE / P.O.

PEDIDO INTERNO / I.O. 5950

PARTIDA (S)

ITEMS 511351-10,20,30,40,50

NUMERO PTM-1583-2012

NUMBER

FECHA

DATE

MARZO 07, 2012

DIAMETRO EXTERIOR :

ESPESOR DE PARED :

GRADO :

PRESION HIDROSTATICA:

OUTSIDE DIAMETER : 10 3/4"

WALL THICKNESS : 0.250"

GRADE : ASTM A53-B

HIDROSTATIC TEST: 69 Kg/cm<sup>2</sup> 980 PSI

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.	LE/UT.	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.	26 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
72-28 Tc Ts	220908	55 295	65 418 70 884	40	0.84	0.114	0.78	0.016	0.006	0.001	0.002	0.003	0.193	0.039	0.038	0.003	0.031	0.026	0.009	0.0046		
89-28 Tc Ts	121137	51 450	63 304 72 020	42	0.81	0.106	0.79	0.017	0.005	0.001	0.001	0.003	0.199	0.027	0.031	0.003	0.022	0.015	0.004	0.0045		
176-8Tc Ts	220904	53 865	65 023 69 156	40	0.82	0.104	0.77	0.018	0.008	0.001	0.004	0.003	0.213	0.032	0.024	0.003	0.020	0.016	0.008	0.0057		
63-7 Tc Ts	220905	52 761	64 212 71 048	42	0.82	0.112	0.79	0.015	0.006	0.001	0.001	0.004	0.215	0.038	0.039	0.002	0.018	0.019	0.005	0.0051		
42-28 Tc Ts	121138	58 133	66 905 73 128	38	0.86	0.121	0.82	0.017	0.006	0.001	0.001	0.004	0.223	0.034	0.029	0.003	0.026	0.020	0.005	0.0043		
96-1 Tc Ts	121140	50 855	64 918 71 789	40	0.78	0.115	0.80	0.018	0.003	0.001	0.002	0.004	0.198	0.016	0.029	0.003	0.016	0.016	0.006	0.0045		
153-9Tc Ts	220962	56 795	67 146 73 257	35	0.84	0.119	0.78	0.016	0.004	0.001	0.002	0.004	0.195	0.023	0.029	0.003	0.021	0.016	0.005	0.0046		
76-3Tc Ts	220907	53 805	66 057 75 443	42	0.81	0.114	0.83	0.016	0.004	0.002	0.002	0.004	0.217	0.026	0.025	0.003	0.019	0.017	0.006	0.0052		
147-15Tc Ts	220961	53 056	66 266 72 225	38	0.80	0.130	0.80	0.014	0.005	0.002	0.002	0.005	0.231	0.020	0.036	0.003	0.018	0.017	0.005	0.0031		
21-10Tc Ts	120934	52 533	63 816 68 522	45	0.82	0.102	0.82	0.014	0.006	0.002	0.001	0.004	0.203	0.029	0.023	0.002	0.025	0.019	0.005	0.0059		
51-3 Tc Ts	121136	55 412	65 416 69 499	43	0.84	0.114	0.78	0.017	0.004	0.001	0.001	0.005	0.218	0.026	0.033	0.003	0.023	0.018	0.005	0.0048		
135-23Tc Ts	220960	53 390	64 262 68 777	42	0.83	0.116	0.81	0.018	0.005	0.001	0.004	0.004	0.206	0.021	0.036	0.003	0.018	0.015	0.006	0.0046		
55-3 Tc Ts	220957	53 923	64 511 72 813	42	0.83 H	0.125	0.81	0.015	0.004	0.001	0.003	0.004	0.217	0.021	0.028	0.003	0.019	0.015	0.006	0.0045		

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