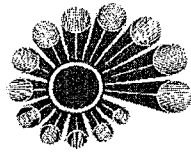


FLM-005-7



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. 4015

PARTIDA (S)

ITEMS 511350-10 / 511351-10 / 117382-20

NUMERO

PTM-01883-2012

NUMBER

FECHA

DATE

ABRIL 17, 2012

DIAMETRO EXTERIOR :

ESPESOR DE PARED :

GRADO :

PRESION HIDROSTATICA:

OUTSIDE DIAMETER : 10 3/4"

WALL THICKNESS : 0.250"

GRADE : ASTM A53-B

HYDROSTATIC TEST: 69 Kg/cm² 980 PSI

HOJA 1 DE 2

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.	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	---	---	---

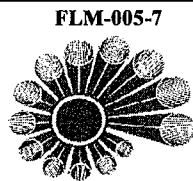
NUM.PROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 2"	LE/UT Y.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	CE IIW	CE
21-10 Tc Ts	120934	52 533	63 816 68 522	45	0.82	0.102	0.82	0.014	0.006	0.002	0.001	0.004	0.203	0.029	0.023	0.002	0.025	0.019	0.005	0.0059		
16-22 Tc Ts	120936	48 605	63 158 71 948	40	0.76	0.116	0.80	0.011	0.007	0.001	0.002	0.004	0.209	0.018	0.037	0.003	0.017	0.017	0.005	0.0059		
15-29 Tc Ts	120937	51 170	63 745 73 050	43	0.80	0.116	0.78	0.011	0.005	0.001	0.002	0.003	0.202	0.021	0.029	0.003	0.012	0.018	0.004	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		
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		
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		
85-14 Tc Ts	121139	53 189	63 696 70 933	45	0.83	0.113	0.79	0.016	0.003	0.001	0.002	0.004	0.215	0.014	0.032	0.003	0.019	0.016	0.005	0.0048		
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		
4-5 Tc Ts	210795	52 722	62 531 66 525	43	0.84	0.108	0.83	0.017	0.005	0.002	0.003	0.003	0.248	0.020	0.036	0.003	0.017	0.019	0.006	0.0041		
6-3 Tc Ts	219475	56 298	66 860 73 535	37	0.84	0.117	0.83	0.014	0.006	0.003	0.002	0.004	0.230	0.024	0.032	0.003	0.018	0.018	0.005	0.0050		
4-13 Tc Ts	219476	52 199	65 442 65 913	42	0.79	0.109	0.81	0.017	0.005	0.002	0.004	0.004	0.227	0.021	0.031	0.003	0.011	0.016	0.004	0.0053		
176-8 Tc 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		

CERTIFICAMOS QUE LA TUBERIA AQUÍ DESCRITA CUMPLE Y HA SIDO
FÁBRICADA, 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

Alfonso
ING. LUIS ALFONSO DE LOS SANTOS RIVERA
JEFE DE LABORATORIO METALURGICO
METALLURGICAL LABORATORY CHIEF



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. 4015
 PARTIDA (S)
 ITEMS 511350-10 / 511351-10 / 117382-20

NUMERO PTM-01883-2012
 NUMBER
 FECHA
 DATE ABRIL 17, 2012

DIAMETRO EXTERIOR : 10 3/4" ESPESOR DE PARED : 0.250" GRADO : ASTM A53-B PRESION HIDROSTATICA: 69 Kg/cm² 980 PSI
 OUTSIDE DIAMETER : WALL THICKNESS : GRADE : HIDROSTATIC TEST: HOJA 2 DE 2

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.	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
31-10 Tc Ts	220906	50 357	64 043 68 168	44	0.78	0.112	0.80	0.018	0.005	0.001	0.002	0.004	0.205	0.036	0.032	0.002	0.021	0.017	0.004	0.0050		
76-3 Tc 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		
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		
172-8 Tc Ts	220955	56 060	66 241 73 065	38	0.84	0.128	0.77	0.010	0.006	0.002	0.001	0.003	0.206	0.025	0.031	0.004	0.015	0.017	0.009	0.0056		
181-23 Tc Ts	220956	52 403	63 393 68 976	42	0.82	0.117	0.77	0.009	0.004	0.001	0.002	0.003	0.204	0.025	0.024	0.003	0.016	0.017	0.004	0.0043		
55-3 Tc Ts	220957	53 923	64 511 72 813	42	0.83	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		
135-23 Tc 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		
147-15 Tc 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		
153-9 Tc 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		
183-27 Tc Ts	220964	53 497	64 422 71 816	45	0.83	0.113	0.80	0.018	0.003	0.002	0.003	0.005	0.223	0.021	0.030	0.003	0.019	0.016	0.005	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

[Handwritten Signature]
 ING. LUIS ALFONSO DE LOS SANTOS RIVERA
 JEFE DE LABORATORIO METALURGICO
 METALLURGICAL LABORATORY CHIEF