

FLM-005-7

PROCARSA, S.A. DE C.V.

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

INSPECTION 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. 16637

PARTIDA (S)

ITEMS 208143-10 / 208579-10

NUMERO PTM-05989-2018

NUMBER

FECHA

DATE ABRIL 11, 2018

DIAMETRO EXTERIOR : OUTSIDE DIAMETER :	12 3/4"	ESPESOR DE PARED : WALL THICKNESS :	0.312"	GRADO : GRADE :	ASTM A53-B	PRESION HIDROSTATICA: HIDROSTATIC TEST:	72 Kg/cm ² 1,030 PSI	HOJA 1 DE 2
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REQUERIMIENTOS DE PRUEBAS DE TENSION / TENSILE TEST 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.	27 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	---	---	---

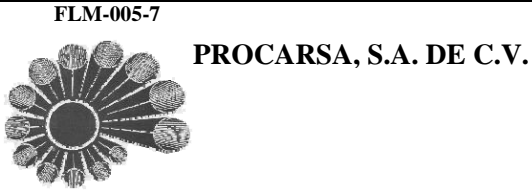
NUM.PROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 2"	LE/UT Y.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	CE IIW	CE Pcm
54-4 Tc Ts	178872	76 612	84 458 87 477	31	0.91	0.083	1.16	0.012	0.003	0.050	0.0030	0.012	0.170	0.024	0.036	0.004	0.021	0.021	0.006	0.0053		
53-15 Tc Ts	278636	66 121	80 929 86 792	28	0.82	0.076	1.16	0.017	0.004	0.050	0.0040	0.015	0.180	0.037	0.038	0.003	0.023	0.021	0.006	0.0052		
37-4 Tc Ts	278637	70 117	81 241 86 552	28	0.86	0.078	1.13	0.018	0.003	0.050	0.0050	0.012	0.180	0.034	0.027	0.003	0.024	0.020	0.006	0.0052		
17-6 Tc Ts	278638	71 352	83 057 88 312	27	0.86	0.067	1.17	0.015	0.004	0.048	0.0040	0.013	0.180	0.019	0.031	0.004	0.026	0.017	0.005	0.0053		
41-4 Tc Ts	278639	65 995	80 261 85 678	27	0.82	0.069	1.18	0.014	0.003	0.050	0.0030	0.013	0.180	0.018	0.032	0.003	0.017	0.017	0.005	0.0052		
32-11 Tc Ts	278641	70 539	81 365 88 012	28	0.87	0.070	1.16	0.013	0.002	0.050	0.0040	0.013	0.180	0.053	0.027	0.002	0.016	0.023	0.006	0.0053		
39-13 Tc Ts	278644	67 894	78 851 83 512	32	0.86	0.055	1.10	0.011	0.002	0.047	0.0030	0.011	0.160	0.024	0.033	0.004	0.017	0.021	0.006	0.0053		
46-22 Tc Ts	278646	67 049	78 594 86 046	34	0.85	0.076	1.14	0.013	0.004	0.050	0.0030	0.013	0.190	0.027	0.033	0.004	0.021	0.019	0.006	0.0053		
76-25 Tc Ts	278647	65 757	86 300 86 445	35	0.76	0.077	1.13	0.012	0.003	0.050	0.0030	0.013	0.170	0.023	0.036	0.003	0.018	0.019	0.006	0.0052		
77-4 Tc Ts	278649	66 756	80 429 83 060	28	0.83	0.065	1.14	0.013	0.003	0.049	0.0030	0.013	0.180	0.016	0.040	0.004	0.046	0.017	0.006	0.0052		
93-7 Tc Ts	278650	74 679	84 079 87 254	30	0.89	0.067	1.15	0.017	0.002	0.049	0.0040	0.013	0.170	0.018	0.036	0.004	0.018	0.016	0.005	0.0053		
92-16 Tc Ts	278651	69 964	80 246 86 998	36	0.87	0.068	1.16	0.012	0.003	0.053	0.0040	0.012	0.180	0.019	0.037	0.003	0.017	0.018	0.006	0.0053		
115-2 Tc Ts	278652	67 753	78 793 84 350	36	0.86	0.066	1.13	0.013	0.002	0.048	0.0030	0.013	0.170	0.024	0.036	0.004	0.023	0.020	0.006	0.0055		
108-5 Tc Ts	278654	68 640	80 963 83 937	32	0.85	0.071	1.15	0.014	0.003	0.048	0.0040	0.013	0.190	0.057	0.033	0.002	0.022	0.026	0.007	0.0055		

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 A53

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

INC. ALEJANDRO ALA. CON CAZARES
JEFE DE LABORATORIO METALURGICO
METALLURGICAL LABORATORY CHIEF



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REQUERIMIENTOS DE PRUEBAS DE TENSION / TENSILE TEST 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.	27 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
116-2 Tc Ts	278656	66 952	80 828 86 506	35	0.83	0.071	1.15	0.017	0.002	0.051	0.0050	0.012	0.190	0.019	0.038	0.003	0.012	0.018	0.005	0.0055		
14-8 Tc Ts	278868	53 563	73 522 77 199	35	0.73	0.071	1.15	0.013	0.002	0.018	0.0030	0.008	0.210	0.030	0.031	0.002	0.018	0.018	0.005	0.0051		
68-23 Tc Ts	278869	65 175	76 517 80 183	31	0.85	0.082	1.17	0.012	0.001	0.019	0.0030	0.007	0.210	0.018	0.032	0.003	0.021	0.017	0.005	0.0050		
6-24 Tc Ts	278871	67 990	79 026 81 719	37	0.86	0.072	1.16	0.014	0.003	0.018	0.0030	0.008	0.210	0.020	0.029	0.002	0.011	0.017	0.004	0.0051		
22-19 Tc Ts	278872	56 883	70 200 76 755	35	0.81	0.070	1.14	0.012	0.001	0.019	0.0030	0.009	0.210	0.021	0.032	0.002	0.016	0.017	0.005	0.0051		
23-16 Tc Ts	278874	60 773	72 810 77 738	30	0.83	0.077	1.15	0.015	0.002	0.019	0.0030	0.008	0.210	0.019	0.028	0.002	0.019	0.017	0.005	0.0050		
56-1 Tc Ts	278875	66 784	75 716 77 971	34	0.88	0.072	1.12	0.021	0.001	0.018	0.0050	0.008	0.210	0.024	0.028	0.002	0.022	0.019	0.005	0.0054		

CERTIFICAMOS QUE LA TUBERIA AQUÍ DESCRITA CUMPLE Y HA SIDO FABRICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO CON LOS REQUISITOS APLICABLES DE LA ESPECIFICACION:	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 ALARCÓN CAZARES JEFE DE LABORATORIO METALURGICO METALLURGICAL LABORATORY CHIEF
ASTM A53	.	
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