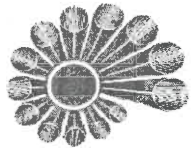


FLM-005-7



PROCARSA, S.A. DE C.V.

EA-100936.

**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. 16372

PARTIDA (S)

ITEMS 89418-20 / 90430-20 / 101214-80 / 108705-10

NUMERO

PTM-06287-2017

NUMBER

FECHA

DATE

JULIO 21, 2017

DIAMETRO EXTERIOR :

ESPESOR DE PARED :

GRADO :

PRESION HIDROSTATICA:

OUTSIDE DIAMETER : 16"

WALL THICKNESS : 0.250"

GRADE : ASTM A53-B

HIDROSTATIC TEST: 46 Kg/cm<sup>2</sup> 660 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.	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.	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 Pcm
66-13 Tc Ts	173928	71 317	83 385 82 245	34	0.86	0.087	1.18	0.014	0.007	0.054	0.005	0.007	0.173	0.010	0.036	0.002	0.020	0.020	0.010	0.0064		
6-12 Tc Ts	182265	48 842	65 214 67 804	35	0.74	0.120	0.76	0.012	0.008	0.003	0.003	0.004	0.310	0.020	0.037	0.004	0.020	0.020	0.009	0.0072		
5-9 Tc Ts	188142	51 673	65 108 66 605	44	0.79	0.148	0.80	0.016	0.005	0.005	0.005	0.005	0.291	0.030	0.034	0.002	0.040	0.030	0.013	0.0064		
30-21 Tc Ts	197958	70 526	86 228 88 236	30	0.81	0.094	1.14	0.016	0.006	0.046	0.004	0.009	0.172	0.025	0.033	0.002	0.019	0.021	0.005	0.0070		
37-16 Tc Ts	197959	68 472	81 065 85 681	37	0.84	0.102	1.12	0.014	0.006	0.048	0.003	0.008	0.165	0.025	0.039	0.002	0.018	0.020	0.005	0.0035		
79-16 Tc Ts	297948	70 051	82 691 85 597	34	0.84	0.080	1.14	0.014	0.004	0.045	0.003	0.007	0.193	0.031	0.037	0.003	0.021	0.026	0.006	0.0064		
7-2 Tc Ts	297949	69 450	79 141 84 554	34	0.87	0.086	1.10	0.016	0.005	0.043	0.003	0.009	0.186	0.032	0.039	0.002	0.019	0.026	0.007	0.0045		
49-16 Tc Ts	297959	69 466	80 591 84 613	33	0.86	0.094	1.15	0.015	0.005	0.044	0.004	0.009	0.201	0.032	0.037	0.002	0.016	0.027	0.008	0.0088		

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

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