

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: CUSTOMER:	PLESA ANAHUAC Y CIAS. S.A. DE C.V.	NUMERO NUMBER	PTM-02455-1-2012
PEDIDO CLIENTE / P.O. PEDIDO INTERNO / I.O.	15291	FECHA DATE	SEPTIEMBRE 07, 2012
PARTIDA (S) ITEMS	511100-10		


DIAMETRO EXTERIOR : OUTSIDE DIAMETER :	20"	ESPEJOR DE PARED : WALL THICKNESS :	0.250"	GRADO : GRADE :	ASTM A53-B	PRESION HIDROSTATICA: HIDROSTATIC TEST:	37 Kg/cm <sup>2</sup> 530 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
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/U.T. Y.S/T.S	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	CE IIW	CE
4-4 Tc Ts	120561	48 596	64 053 66 376	42	0.75	0.105	0.78	0.015	0.008	0.002	0.0030	0.004	0.214	0.020	0.046	0.002	0.018	0.014	0.013	0.0049		
1-15 Tc Ts	120562	47 806	61 532 65 672	41	0.77	0.107	0.80	0.015	0.007	0.003	0.0030	0.003	0.210	0.021	0.045	0.003	0.024	0.016	0.014	0.0051		

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