



PROCARSA, S.A. DE C.V.

**CERTIFICADO DE CALIDAD  
DE PRUEBAS FISICAS-QUIMICAS**

QUALITY CERTIFICATE OF TEST PHYSICAL-CHEMICAL

CLIENTE: TIGOTA  
CUSTOMER:  
PEDIDO CLIENTE / P.O. 732  
PARTIDA (S)  
ITEMS 2495-3

NUMERO: FLM-487-1-2001  
FECHA: AGOSTO 14, 2001  
DATE

TAMANO: 12 3/4" ESPESOR DE PARED: 0.406" GRADO: ANTIM A53-B  
SIZE: WALL THICKNESS: TENSILE TEST: ASTM A53-B


ANALISIS QUIMICO % EN PESO: 94 K/gcm<sup>3</sup> 1340 PSI  
CHEMICAL ANALYSIS PERCENT WEIGHT: ANALYSIS ATIC TEST: HIDRON/ATIC TEST:

NUM. PROBEA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (P.S.I.)	ULTIMA TENSION TENSILE STRENGTH (P.S.I.)	% ELONG. 2"	LEMLT Y/FTS	C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
45-2 TC Ts	12849	49 436	62 813 67 966	38	0.79	0.166	0.79	0.010	0.005	--	--	--	0.167	0.020	0.052	0.0012	0.003	0.010	--	0.0029	
78-8 TC Ts	12852	53 190	62 854 68 974	39	0.85	0.150	0.79	0.010	0.008	--	--	--	0.163	0.020	0.046	0.0010	0.006	0.010	--	0.0029	
6-14 TC Ts	22815	53 685	67 418 73 784	44	0.80	0.170	0.79	0.012	0.004	--	--	--	0.182	0.039	0.041	0.0006	0.008	0.014	--	0.0030	
121-16 TC Ts	43147	49 934	62 374 69 236	40	0.80	0.170	0.77	0.008	0.007	--	--	--	0.160	0.010	0.032	0.0021	0.002	0.007	--	0.0037	

CERTIFICAMOS QUE LA TUBERIA AQUI DESCRITA CUMPLE Y HA SIDO FABRICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO CON LOS REQUISITOS APLICABLES DE LA ESPECIFICACION:

WE CERTIFY THE PIPE ABOVE MENTIONED ACCOMPLISH AND HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SPECIFICATIONS:

ASTM

  
MRS. FERNANDO OSORIO PEREZ  
GERENTE DE ASEGURAMIENTO DE CALIDAD  
QUALITY ASSURANCE MANAGER