



PROCARSA, S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

DIAMETRO: 20" ESPESOR DE PARED: 0.500" GRADO: ASTM A53-B TUCOTA NUMERO: PTM-5232-2-2002

WALL THICKNESS: 0.500" GRADE: ASTM A53-B TUCOTA CUSTOMER: TUCOTA

ANALISIS QUIMICO % EN PESO 20172-30/21105-10/34384-40/22444-10/X8879-3 PEDIDO CLIENTE/P.O. 9015 PEDIDO INTERNO/I.O. 9015 PARTIDA (S) 20172-30/21105-10/34384-40/22444-10/X8879-3 FECHA: JUNIO 07, 2002

PRESON HIDROSTATICA: 74 Kg/cm² 1050 PSI HIDROSTATIC TEST: CHEMICAL ANALYSES PERCENT WEIGHT

NUM. PROBETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (F.S.I.)	ULTIMA TENSION TENSILE STRENGTH (F.S.I.)	% ELONG. 1"	LEAD INCHES	CHEMICAL ANALYSES PERCENT WEIGHT														
						C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N
5-5 TC TS	111159	49 710	64 291	45	0.77	0.135	0.92	0.015	0.006	-	-	-	0.194	0.012	0.050	-	0.018	0.029	-	0.0057
68-1 TC TS	111397	65 154	72 982	37	0.88	0.056	0.78	0.019	0.004	-	-	-	0.240	0.302	0.036	-	0.019	0.037	-	0.0073
8-8 TC TS	122442	51 234	74 982	41	0.76	0.171	1.13	0.019	0.006	-	-	-	0.212	0.025	0.035	-	0.032	0.035	-	0.0044
1-2 TC TS	210822	49 096	70 250	46	0.76	0.133	0.91	0.017	0.005	-	-	-	0.184	0.012	0.043	-	0.018	0.026	-	0.0064
74-5 TC TS	211069	62 251	70 690	38	0.85	0.053	0.78	0.013	0.005	-	-	-	0.235	0.261	0.037	-	0.019	0.028	-	0.0061
71-5 TC TS	211072	64 429	75 885	38	0.89	0.055	0.81	0.011	0.004	-	-	-	0.195	0.271	0.037	-	0.021	0.028	-	0.0051
190-7 TC TS	212147	59 733	71 172	40	0.84	0.079	0.79	0.018	0.005	-	-	-	0.197	0.250	0.044	-	0.024	0.034	-	0.0063
14-9 TC TS	295603	52 476	73 561	37	0.79	0.134	0.90	0.016	0.008	-	-	-	0.158	0.010	0.044	-	0.016	0.029	-	0.0049
			75 742																	

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

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