



FLM-405-7
PROCARSA, S.A. DE C.V.

**CERTIFICADO DE CALIDAD
 DE PRUEBAS FISICAS-QUIMICAS**
 QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: TUCOTA
 PEDIDO CLIENTE / P.O. 9602
 PEDIDO INTERNO / I.O.
 PARTIDA(S)
 ITEMS 32945-30
 PRESION HIDROSTATICA: 58 Kg/cm² 820 PSI
 ANALISIS QUIMICO % EN PESO
 HIDROSTATIC TEST:
 CHEMICAL ANALYSIS PERCENT WEIGHT

DIAMETRO: 12.34" ESPESOR DE PARED: 0.25" GRADO: ASTM A53-B
 WALL THICKNESS: 0.25" GRADE: ASTM A53-B

IDENTIFICACION DESCRIPCION	COLUMNA HEAT	LARGO RELATIVO YIELD STRENGTH % ALL	ESTIMA TENSION TENSILE STRENGTH % ALL	% ELONG. %	LEAST YIELD	C	Min	P	S	Cb	V	Ti	SI	Cu	Al	Ca	Cr	NI	Mo	N	CeQ
1-12 Tc Ts	121075	53 528	65 570 72 568	40	0.82	0.137	0.81	0.018	0.009	-	-	-	0.174	0.013	0.042	0.0004	0.028	0.036	-	-	-
10-12 Tc Ts	121077	53 540	68 401 73 213	38	0.81	0.150	0.81	0.019	0.008	-	-	-	0.150	0.013	0.030	0.0004	0.026	0.028	-	-	-
25-8 Tc Ts	121106	49 852	65 782 67 825	40	0.76	0.152	0.84	0.017	0.008	-	-	-	0.116	0.011	0.027	0.0015	0.021	0.023	-	-	-
21-15 Tc Ts	121107	53 425	63 041 69 889	41	0.85	0.132	0.81	0.013	0.007	-	-	-	0.141	0.010	0.040	0.0005	0.016	0.032	-	-	-
34-18 Tc Ts	121109	52 799	65 422 70 873	37	0.81	0.128	0.84	0.020	0.009	-	-	-	0.146	0.013	0.044	0.0006	0.019	0.025	-	-	-
8-14 Tc Ts	221071	51 285	62 343 68 538	40	0.82	0.146	0.79	0.019	0.009	-	-	-	0.145	0.016	0.042	0.0004	0.033	0.050	-	-	-
19-6 Tc Ts	221072	53 680	63 889 70 382	35	0.84	0.137	0.81	0.017	0.010	-	-	-	0.159	0.021	0.043	0.0003	0.025	0.029	-	-	-
12-14 Tc Ts	221073	52 861	65 812 73 435	40	0.80	0.145	0.81	0.019	0.008	-	-	-	0.142	0.013	0.030	0.0004	0.026	0.028	-	-	-

CERTIFICAMOS QUE LA TUBERIA ACIF 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 A53-B-88
 GERENTE DE ASEGURAMIENTO DE CALIDAD
 QUALITY ASSURANCE MANAGER

[Handwritten Signature]
 GERENTE DE ASEGURAMIENTO DE CALIDAD
 QUALITY ASSURANCE MANAGER

NUMERO
 NUMBER
 FTM-53486,89-2002

FECHA
 DATE
 NOVIEMBRE 13, 2002