



FLM-005-7

PROCARSA, S.A. DE C.V.
CERTI ADO DE CALIDAD
DE PRUEBAS FISICAS-QUIMICAS

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: TUCOTA
 CUSTOMER:
 PEDIDO CLIENTE/P.O. 8573
 PEDIDO INTERNO/I.O. PARTIDA(S)
 32539-30

NUMERO PTM-51923,24-2002
 NUMBER
 FECHA DATE
 MAYO 02, 2002

DIAMETRO: 10 3/4" ESPESOR DE PARED 0.250" GRADO: ASTM A53-B PRESION HIDROSTATICA: 69 Kg/cm² 980 PSI
 WALL THICKNESS GRADE: ASTM A53-B ANALISIS QUIMICO % EN PESO
 CHEMICAL ANALYSES PERCENT WEIGHT

NUM/PROBETA DESCRIPTION	COLADA HEAT	TENSILE TEST				C	Mn	P	S	Cb	V	Ti	Si	Cu	Al	Ca	Cr	Ni	Mo	N	Ceq
		LIMITE ELASTICO YIELD STRENGTH (F _{0.2})	ULTIMA TENSION TENSILE STRENGTH (F _U)	% ELONG. E ₂	LEAD LEAD																
5-11 Tc Ts	121057	50 789	67 198 74 359	37	0.76	0.171	1.11	0.017	0.006	0.001	0.003	0.004	0.218	0.013	0.045	0.0031	0.019	0.026	0.003	0.0045	
2-10 Tc Ts	121074	51 241	67 961 71 617	35	0.75	0.170	1.12	0.020	0.006	0.001	0.003	0.004	0.206	0.014	0.033	0.0033	0.018	0.024	0.003	0.0047	
25-6 Tc Ts	121222	52 420	72 877 79 538	35	0.72	0.180	1.12	0.017	0.007	0.001	0.002	0.004	0.245	0.015	0.045	0.0034	0.013	0.024	0.006	0.0048	
17-16 Tc Ts	221210	50 886	68 831 74 574	38	0.74	0.170	1.08	0.019	0.008	0.001	0.004	0.004	0.180	0.016	0.041	0.0024	0.017	0.023	0.004	0.0052	
14-18 Tc Ts	221211	52 157	67 403 74 225	38	0.77	0.161	1.08	0.012	0.005	0.001	0.002	0.004	0.220	0.013	0.038	0.0030	0.010	0.023	0.004	0.0059	

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