

FLM-005-7

PROCARSA, S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

NUMERO PTM-52513-2002

NUMBER

FECHA JULIO 13, 2002

DATE

CLIENTE: TUCOTA

CUSTOMER:

PEDIDO CLIENTE / P.O.

9157

PEDIDO INTERNO / I.O.

36044-10

PARTIDA (S)

ITEMS

PRESSION HIDROSTATICA:

HIDROSTATIC TEST:

ANALISIS QUIMICO % EN PESO

CHEMICAL ANALYSES PERCENT WEIGHT

62 Kg/cm<sup>2</sup>

880 PSI

GRADO: ASTM A53-B

GRADE:

0.375"

ESPESOR DE PARED

WALL THICKNESS

DIAMETRO: 18"

PRUEBAS DE TENSION


TENSILE TEST

| NUM. PROBETA<br>DESCRIPCION | COLADA<br>HEAT | LIMITE ELASTICO<br>YIELD STRENGTH<br>(K.SI) | ULTIMA TENSION<br>TENSILE STRENGTH<br>(K.SI) | % ELONG.<br>5" | LEANT<br>YMPA | C     | Mn   | P     | S     | CB    | V     | TR #  | SI    | Cu    | Al    | Ca     | Cr    | NI    | Mo    | N      | Ceq |
|-----------------------------|----------------|---|--|----------------|---------------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|--------|-----|
| 5-8 TC<br>Ts                | 223394         | 58 447                                      | 68 676<br>77 866                             | 41             | 0.85          | 0.180 | 1.12 | 0.019 | 0.008 | 0.004 | 0.004 | 0.003 | 0.170 | 0.019 | 0.035 | 0.0018 | 0.017 | 0.023 | 0.011 | 0.0049 |     |
| 3-12 TC<br>Ts               | 223398         | 52 802                                      | 72 968<br>81 266                             | 36             | 0.73          | 0.169 | 1.12 | 0.021 | 0.008 | 0.004 | 0.005 | 0.004 | 0.161 | 0.012 | 0.034 | 0.0029 | 0.015 | 0.026 | 0.014 | 0.0059 |     |
| 10-4 TC<br>Ts               | 223399         | 53 109                                      | 68 411<br>75 716                             | 40             | 0.78          | 0.185 | 1.15 | 0.023 | 0.008 | 0.003 | 0.005 | 0.004 | 0.183 | 0.015 | 0.035 | 0.0030 | 0.019 | 0.032 | 0.014 | 0.0044 |     |
| 9-3 TC<br>Ts                | 223403         | 50 167                                      | 72 092<br>77 040                             | 40             | 0.70          | 0.176 | 1.12 | 0.019 | 0.006 | 0.004 | 0.005 | 0.004 | 0.231 | 0.013 | 0.034 | 0.0033 | 0.015 | 0.024 | 0.013 | 0.0068 |     |

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 OSORNO-SANCHEZ  
GERENTE DE ASEGURAMIENTO DE CALIDAD  
QUALITY ASSURANCE MANAGER