

PROCARSA, S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

| | | | |
|-----------------------|----------|--------|--------------------|
| CLIENTE: | TUCOTA | NUMERO | PTM-56841-1-2003 |
| CUSTOMER: | | NUMBER | |
| PEDIDO CLIENTE / P.O. | 11337 | FECHA | NOVIEMBRE 22, 2003 |
| PEDIDO INTERNO / I.D. | | DATE | |
| PARTIDA (S) | 49830-60 | | |

DIAMETRO : 12 3/4" ESPESOR DE PARED : 0.406" GRADO : ASTM A53-B PRESION HIDROSTATICA: 94 Kg/cm² 1340 PSI

**PRUEBAS DE TENSION
TENSILE TEST**


| NUMERO DE PROPIEDAD DESCRIPCION | COLADA HEAT | LIMITE ELASTICO YIELD STRENGTH (F.S.I.) | ULTIMA TENSION TENSILE STRENGTH (F.S.I.) | % ELONG. 1" | LEULT Y.S.F.T.S | C | Mn | P | S | Cb | V | Ti | Si | Cu | Al | Ca | Cr | Ni | Mo | N | Ceq |
|------------------------------------|----------------|---|--|----------------|--------------------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|--------|-----|
| 8-10 TC TS | 236816 | 54 197 | 67 038 74 862 | 41 | 0.81 | 0.166 | 1.11 | 0.012 | 0.007 | 0.003 | 0.003 | 0.003 | 0.191 | 0.012 | 0.040 | 0.0030 | 0.013 | 0.024 | 0.007 | 0.0059 | |

**ANALISIS QUIMICO % EN PESO
CHEMICAL ANALYSES PERCENT WEIGHT**

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 A53-B -99


ING. FERNANDO OSORIO PEREZ
GERENTE DE ASEGURAMIENTO DE CALIDAD