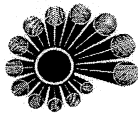


FLM-005-7



PROCARSA, S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: PLESA ANAHUAC Y CIAS. S.A. DE C.V.

NUMERO PTM-74668-2009

CUSTOMER:

NUMBER

PEDIDO CLIENTE / P.O.

PEDIDO INTERNO / L.O. 2220

FECHA

DATE ABRIL 22, 2009

PARTIDA (S)

ITEMS 88978-110 / 91652-10 / 65860-10

DIAMETRO :

DIAMETER : 20"

ESPESOR DE PARED

WALL THICKNESS

0.250"

GRADO :

GRADE :

ASTM A53-B

PRESION HIDROSTATICA:

HIDROSTATIC TEST:

37 Kg/cm²

520 PSI

**PRUEBAS DE TENSION
TENSILE TEST**
**ANALISIS QUIMICO % EN PESO
CHEMICAL ANALYSES PERCENT WEIGHT**

| NUM.PROBETA DESCRIPTION | COLADA HEAT | LIMITE ELASTICO YIELD STRENGTH (P.S.I.) | ULTIMA TENSION TENSILE STRENGTH (P.S.I.) | % ELONG. 2" | LE/UT Y.S/T.S | C | Mn | P | S | Cb | V | Ti | Si | Cu | Al | Ca | Cr | Ni | Mo | N | Ceq |
|----------------------------|----------------|---|--|----------------|------------------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-----|
| 7-15 Tc Ts | 172649 | 43 647 | 65 012 71 199 | 37 | 0.67 | 0.120 | 0.79 | 0.013 | 0.006 | 0.002 | 0.001 | 0.003 | 0.300 | 0.027 | 0.036 | 0.003 | 0.023 | 0.021 | 0.005 | 0.0050 | |
| 2-12 Tc Ts | 176260 | 44 392 | 63 681 68 751 | 38 | 0.70 | 0.129 | 0.79 | 0.013 | 0.006 | 0.002 | 0.003 | 0.004 | 0.301 | 0.020 | 0.038 | 0.003 | 0.020 | 0.030 | 0.008 | 0.0061 | |
| 10-8 Tc Ts | 253568 | 49 340 | 70 676 75 259 | 39 | 0.70 | 0.176 | 1.08 | 0.017 | 0.006 | 0.003 | 0.005 | 0.004 | 0.190 | 0.020 | 0.041 | 0.002 | 0.030 | 0.030 | 0.004 | 0.0063 | |
| 3-18 Tc Ts | 272457 | 43 540 | 64 597 73 663 | 39 | 0.67 | 0.130 | 0.80 | 0.013 | 0.005 | 0.001 | 0.002 | 0.002 | 0.280 | 0.018 | 0.037 | 0.003 | 0.021 | 0.021 | 0.003 | 0.0035 | |
| 9-10 Tc Ts | 276201 | 44 077 | 62 810 69 677 | 39 | 0.70 | 0.119 | 0.78 | 0.015 | 0.007 | 0.004 | 0.002 | 0.003 | 0.282 | 0.031 | 0.035 | 0.003 | 0.022 | 0.023 | 0.007 | 0.0045 | |
| 3-18 Tc Ts | 276207 | 44 373 | 64 997 74 376 | 40 | 0.68 | 0.128 | 0.81 | 0.014 | 0.008 | 0.003 | 0.003 | 0.004 | 0.298 | 0.020 | 0.020 | 0.002 | 0.030 | 0.030 | 0.007 | 0.0066 | |

CERTIFICAMOS QUE LA TUBERIA AQUÍ DESCRITA CUMPLE Y HA SIDO FABRICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO CON LOS REQUISITOS APLICABLES DE LA ESPECIFICACION:

ASTM A53-B -06

WE CERTIFY THE PIPE ABOVE MENTIONED ACCOMPLISH AND HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SPECIFICATIONS:

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