



FLM-005-7
PROCARSA, S.A. DE C.V.

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

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

DIAMETRO : 24" ESPESOR DE PARED / WALL THICKNESS : 0.250" GRADO : ASTM A53-B PRESSION HIDROSTATICA: 440 PSI

**PRUEBAS DE TENSION
 TENSILE TEST**

ANALISIS QUIMICO % EN PESO
 CHEMICAL ANALYSES PERCENT WEIGHT

| NUM. PROBE TA DESCRIPTION | COLADA HEAT | LIMITE ELASTICO YIELD STRENGTH (P.S.I.) | ULTIMA TENSION TENSILE STRENGTH (P.S.I.) | % ELONG. 2" | LEPUI Y.S.T.S | C | Mn | P | S | Cb | V | Ti | Si | Cu | Al | Ca | Cr | Ni |
|------------------------------|----------------|---|--|----------------|------------------|-------|------|-------|-------|-------|----|----|-------|-------|-------|----|--------|-------|
| 64-6 Tc Ts | ZY1275 | 56 611 | 68 190 72 200 | 37 | 0.83 | 0.080 | 0.73 | 0.020 | 0.008 | 0.010 | -- | -- | 0.190 | 0.010 | 0.014 | -- | 0.020 | 0.010 |
| 61-6 Tc Ts | ZY1276 | 56 168 | 67 924 71 476 | 38 | 0.83 | 0.090 | 0.75 | 0.018 | 0.006 | 0.010 | -- | -- | 0.190 | 0.020 | 0.023 | -- | 0.030 | 0.020 |
| 63-5 Tc Ts | ZY1277 | 60 093 | 67 605 73 793 | 36 | 0.89 | 0.090 | 0.75 | 0.015 | 0.010 | 0.010 | -- | -- | 0.190 | 0.020 | 0.024 | -- | 0.030 | 0.010 |
| 46-5 Tc Ts | 164222 | 58 662 | 72 550 80 512 | 36 | 0.81 | 0.070 | 0.69 | 0.015 | 0.010 | 0.014 | -- | -- | 0.218 | 0.060 | 0.041 | -- | 0.0200 | 0.030 |
| 76-6 Tc Ts | 164224 | 59 287 | 71 144 79 562 | 37 | 0.83 | 0.060 | 0.77 | 0.020 | 0.006 | 0.015 | -- | -- | 0.249 | 0.090 | 0.039 | -- | 0.0100 | 0.020 |
| 7-5 Tc Ts | 164228 | 55 129 | 69 304 73 439 | 38 | 0.80 | 0.070 | 0.71 | 0.016 | 0.011 | 0.014 | -- | -- | 0.246 | 0.080 | 0.044 | -- | 0.0200 | 0.030 |
| 124-12 Tc Ts | 164233 | 59 570 | 73 765 82 319 | 38 | 0.81 | 0.080 | 0.74 | 0.014 | 0.012 | 0.011 | -- | -- | 0.237 | 0.100 | 0.050 | -- | 0.0200 | 0.020 |
| 99-11 Tc Ts | 164234 | 58 055 | 69 666 73 436 | 39 | 0.83 | 0.090 | 0.72 | 0.017 | 0.008 | 0.010 | -- | -- | 0.226 | 0.100 | 0.040 | -- | 0.0200 | 0.020 |
| 64-5 Tc Ts | 164235 | 54 814 | 72 842 74 099 | 39 | 0.75 | 0.070 | 0.68 | 0.012 | 0.010 | 0.011 | -- | -- | 0.219 | 0.110 | 0.039 | -- | 0.0200 | 0.020 |
| 12-6 Tc Ts | 164238 | 59 186 | 69 947 76 564 | 36 | 0.85 | 0.080 | 0.86 | 0.013 | 0.007 | 0.011 | -- | -- | 0.210 | 0.100 | 0.044 | -- | 0.0200 | 0.020 |
| 66-11 Tc Ts | 269107 | 55 467 | 72 831 79 090 | 37 | 0.76 | 0.080 | 0.76 | 0.014 | 0.010 | 0.013 | -- | -- | 0.241 | 0.120 | 0.039 | -- | 0.0200 | 0.030 |
| 135-11 Tc Ts | 269111 | 61 437 | 69 462 78 082 | 35 | 0.88 | 0.070 | 0.66 | 0.014 | 0.010 | 0.012 | -- | -- | 0.229 | 0.090 | 0.033 | -- | 0.0100 | 0.020 |
| 48-3 Tc Ts | 269146 | 53 883 | 67 237 73 712 | 42 | 0.80 | 0.060 | 0.69 | 0.013 | 0.007 | 0.012 | -- | -- | 0.225 | 0.050 | 0.031 | -- | 0.0100 | 0.020 |

CERTIFICAMOS QUE LA TUBERIA AGUI 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
 QUALITY ASSURANCE MANAGER

CLIENTE: TUCOTA
 CUSTOMER:
 PEDIDO CLIENTE / P.O.:
 PEDIDO INTERNO / I.O.: 11078
 PARTIDA (S):
 JP-5-01 / YG-1-00
 PRESSION HIDROSTATICA: 440 PSI
 HIDROSTATIC TEST:
 31 Kg/cm²
 NUMERO NUMBER
 FECHA DATE
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