

**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474 3.1.B)

Tubos de Acero de México, S.A.
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Vendido a: **PLESA ANAHUAC Y CIA. S.A. DE C.V.** Pedido del Cliente No: **3333 -** Lista de Empaque: **9 4 9 5** Fecha/Date: **14 de Agosto de 2007**
Sold to: **PLESA ANAHUAC Y CIA. S.A. DE C.V.** Customers Order No: **3333 -** Packing List: **9 4 9 5**

Especificaciones y Grados / Standard or Specification and Steel Grade **ASME B 16.9 - 2003 and ASME B 16.28 - 1994**
Seamless Fittings according to ASTM A 234" W" WPB-97, A234" W" WPB-05a, NACE MR 01.75-2003
Conform to ASME II Ed. 2001 ASME SA-234" W", Grade WPB. Dimensiones y tolerancias / Dimension and tolerances

| DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION | | | | PRUEBAS MECANICAS / MECHANICAL TEST | | | | PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C | | | |
|--|------------------|-------------------|----------------------------|-------------------------------------|-------------------------------------|------------|--------------------|---|----------|----------|-------------------------|
| ART. ITEM | COLADA HEAT CODE | CANTIDAD QUANTITY | DESCRIPCION / DESCRIPTION | ESF. CEDENCIA YIELD STRENGTH (Mpa) | ESF. RUPTURA TENSILE STRENGTH (Mpa) | ELONG. %2" | DUREZA HARDNESS HB | 1 Joules | 2 Joules | 3 Joules | PROMEDIO AVERAGE Joules |
| 1 | T34690 | 60 | CODO 8 X 90° R. I. CED-STD | 314 | 487 | 38 | 92 | | | | |

ANALISIS QUIMICO / CHEMICAL ANALYSIS

| PROCESO PROCESS | COLADA HEAT CODE | COLADA/HEAT M.P./MOTHER PIPE | %C.E. | %C | %Mn | %P | %S | %SI | %Cr | %Cu | %Mo | %Ni | %V | %Nb |
|-----------------|------------------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| HF | T34690 | 34690 | 0.310 | 0.170 | 0.680 | 0.008 | 0.002 | 0.270 | 0.060 | 0.085 | 0.029 | 0.040 | 0.000 | 0.000 |

Cartifcamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado B con N°. We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or supplier Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B N°. 7032948

Este material cumple con los requerimientos especificados en la orden.
The material of this certificate heat number mentioned above is in compliance with the requirements specified in the order"

Notes: Hot formed fittings in a range from 620°C to 980°C, cooled in still air.
Cold formed normalized at 940°C max.
Holding time 10'.
Visual dimensional check: Satisfactory

The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting.

Jefe de Calidad:
Quality Manager:

Formado en caliente a 620°C-980°C, enfriado al aire; Formado en frío normalizado a 940°C max. Tiempo de permanencia 10'.
Inspección Dimensional: Satisfactoria.
HF: FORMADO EN CALIENTE/HOT FORMED

ING. JOSE MARTINEZ MACIAS
CC-008