



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

Tubos de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
65550 C. de Flores, N.L. Méx.
(52) 81 8305 9600 tel
(52) 81 8305 9620 fax

Vendido a: PLESA ANAHUAC Y CIA. S.A. DE C.V.
 Sold to: PLESA ANAHUAC Y CIA. S.A. DE C.V.
 Especificaciones y Grados / Standard or Specification and Steel Grade
 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, NACE MRO 103-2003
 Pedido del Cliente No: 4440 -
 Customers Order No: Dimensiones y tolerancias / Dimension and tolerances
 ASME B 16.9 - 2003 and ASME B 16.28 - 1994

ART. ITEM	COLADA HEAT CODE	CANTIDAD QUANTITY	DESCRIPCION / DESCRIPTION	ESF. CEDENCIA YIELD STRENGTH (Mpa)	ESF. RUPURA TENSILE STRENGTH (Mpa)	ELONG. %2"	DUREZA HARDNESS HBW	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
12	PVS	5	RED ECC. 12 X 10 CED-STD	320	485	42	156					

DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION				PRUEBAS MECANICAS / MECHANICAL TEST				PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C						
PROCESO PROCESS	COLADA HEAT CODE	COLADA/HEAT M.P/MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%Si	%Cr	%Cu	%Mo	%Ni	%V	%Nb
CF	PVS	95149	0.316	0.180	0.660	0.007	0.026	0.250	0.050	0.063	0.047	0.030	0.001	0.001

ANALISIS QUIMICO / CHEMICAL ANALYSIS

Certificamos 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 (Tuberia 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° 0

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:
 Formado en caliente a 620°C-980°C, enfriado al aire.
 Hot formed fittings in a range from 620°C to 980°C, cooled in still air.
 Formado en frío normalizado a 940°C max.
 Cold formed normalized at 940°C max.
 Tiempo de permanencia 10'.
 Holding time 10'.
 Inspección Dimensional, Satisfactoria.
 Visual dimensional check, Satisfactory
 HF: FORMADO EN CALIENTE/HOT FORMED
 CF: FORMADO EN FRIO/COLD FORMED

The Products described herein were produced in accordance with the above referenced specificatio the "R" which is permanently marked on each fitting. The values of hardness for fittings NPS 2 1/2

Jefe de Calidad:
 Quality Manager:

 ING. WILDO GALLEGOS GALVAN
 CC-008