

CERTIFICADO DE CALIDAD INSPECTION CERTIFICATE

(DIN EN 10204:2004E - ISO 10474: 2013 3.1.B)

Vendido a: Sold to:	PROVEEDORA DE MATERIALES ANKER, S.A. DE C.V.	Numero: Number:	31853	Pagina/Page:	1
Especificaciones y Grados / Standard or Specification and Steel Grade	8410 - 8275 - 8374 -	Lista de Empaque: Packing List:	17676	Fecha/Date:	26 de julio de 2018
Seamless Fittings according to ASTM A 234 WPB-17e	Pedido del Cliente No: Customers Order No:	Factura/Invoice:			
Conform to ASME II Ed. 2017 ASME SA-234, Grade WPB	Dimensiones y tolerancias / Dimension and tolerances	Bocas / Ends Biselado / Bevelled ends			
ASME B 16.9 - 2012					

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 HBW	DIMENSIONES SAMPLE DIM mm	1 Joules	2 Joules	3 Joules	PROMEDIO AVERAGE Joules
1	T93682	100	CODO 6 X 90° R.I. CED-STD.	328	501	30	146					
2	T94027	135	CODO 6 X 90° R.I. CED-STD.	328	481	36	140					
3	T93683	229	CODO 6 X 90° R.I. CED-STD.	341	486	38	120					
4	T39932	200	CODO 1 X 90° R.I. CED-STD.	282	448	51	114					
5	T87035	124	RED. CONC. 4 X 2 CED-STD.	331	488	37	136					

ANALISIS QUIMICO / CHEMICAL ANALYSIS														
PROCESO PROCESS	COLADA HEAT CODE	COLADA/M.P./MOTHER PIPE	%C.E.	%C	%Mn	%P	%S	%SI	%Cr	%Cu	%Mo	%Ni	%V	%Nb
HF	T93682	93682	0.310	0.180	0.680	0.006	0.001	0.280	0.040	0.057	0.023	0.030	0.002	0.000
HF	T94027	94027	0.300	0.170	0.680	0.006	0.001	0.270	0.050	0.068	0.020	0.030	0.001	0.000
HF	T93683	93683	0.310	0.180	0.690	0.006	0.001	0.270	0.030	0.057	0.017	0.030	0.002	0.000
HF	T39932	39932	0.280	0.160	0.540	0.015	0.002	0.180	0.080	0.104	0.016	0.040	0.000	0.000
CF	T87035	87035	0.310	0.180	0.690	0.008	0.001	0.280	0.030	0.059	0.016	0.030	0.000	0.000

Notas:
 Formado en caliente a 620°C-900°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
 CF: FORMADO EN FRIO/COLD FORMED

Notas:
 Hot formed fittings in a range from 620°C to 900°C, cooled in still air.
 Cold formed normalized at 940°C max. Holding time 10'.
 Visual dimensional check: Satisfactory
 CF: FORMADO EN FRIO/COLD FORMED

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. The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60.
 Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60.
 MATERIAL ACCORDING TO NACE MR0175ISO 15156, 2015 AND NACE MR0103, 2015 ONLY HARDNESS

Certificamos que los resultados de los Análisis Químicos y Pruebas Mecánicas 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) cents conform to ASTM A106 Grade B N°:
 18034422 18039045 18034422 F00016391 17037431

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".

ING. ALFONSO ORTEGA GARCIA
 Quality Manager/Jefe de Calidad:
 FOR03161