

**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474: 2013 3.1.B)

Numero:
Number:

31682

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Vendido a: Sold to:	PROVEEDORA DE MATERIALES ANKER, S.A. DE C.V.	Pedido del Cliente No: Customers Order No:	8275 - 8311 - 8278 -	Lista de Empaque: Packing List:	17581	Fecha/Date:	11 de mayo de 2018
Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 WPB-17e Conform to ASME II Ed. 2017 ASME SA-234, Grade WPB		Dimensiones y tolerancias / Dimension and tolerances ASME B 16.9 - 2012			Factura/Invoice: Bocas / Ends Biselado / Bevelled ends		

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	T92167	6	CODO 12 X 90° R.C. CED-STD	286	487	42	126					
2	T91329	95	CODO 6 X 90° R.L. CED-XS	289	501	41	122					
3	T91328	34	CODO 6 X 90° R.L. CED-XS	326	496	41	122					
4	T92386	72	CODO 12 X 90° R.L. CED-STD	322	499	41	120					
5	T87035	228	RED. CONC. 4 X 3 CED-STD	331	488	37	118					
6	T91329	16	CODO 5 X 90° R.L. CED-STD	347	507	37	145					
7	T90843	97	CODO 2 1/2 X 180° R.L. CED-STD	348	510	37	122					
8	T89387	55	CODO 2 1/2 X 180° R.L. CED-XS	331	489	36	120					
9	T88129	20	RED. CONC. 3 X 11/4 CED-STD	352	506	34	126					
10	T89387	28	CODO 2 1/2 X 180° R.C. CED-XS	331	489	36	120					

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	T92167	92167	0.320	0.180	0.710	0.011	0.002	0.290	0.050	0.078	0.020	0.040	0.002	0.000
HF	T91329	91329	0.330	0.180	0.810	0.011	0.001	0.300	0.030	0.067	0.018	0.030	0.000	0.000
HF	T91328	91328	0.320	0.180	0.760	0.011	0.002	0.290	0.030	0.069	0.019	0.030	0.000	0.000
HF	T92386	92386	0.320	0.180	0.690	0.017	0.002	0.280	0.040	0.078	0.025	0.030	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
HF	T91329	91329	0.330	0.180	0.790	0.011	0.001	0.290	0.030	0.066	0.019	0.030	0.000	0.000
HF	T90843	90843	0.330	0.180	0.720	0.011	0.003	0.290	0.060	0.072	0.040	0.040	0.000	0.000
HF	T89387	89387	0.300	0.170	0.660	0.006	0.002	0.270	0.040	0.070	0.016	0.030	0.000	0.000
CF	T88129	88129	0.320	0.180	0.730	0.010	0.001	0.280	0.030	0.076	0.019	0.030	0.000	0.000
HF	T89387	89387	0.300	0.170	0.660	0.006	0.002	0.270	0.040	0.070	0.016	0.030	0.000	0.000

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) certs conform to ASTM A106 Grade B N°:
18024930 18016724 18016724 18016558 17037431 18019540 18008959 17064298 17053856 17064298
"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".

Notas: 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	Notas: 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 CF: FORMADO EN FRIO/COLD FORMED	 Quality Manager/Jefe de Calidad: ING. ALFONSO ORTEGA GARCIA	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 MR0175/ISO 15156, 2015 AND NACE MR0103,2015 ONLY HARDNESS
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