Tubacero
Ave. Guerrero
No. 3720 pte.
Col. Del Norte
Monterrey N.L. México
CP.64500
TEL:3014400
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CERTIFICADO DE TUBERIA

PIPE CERTIFICATE

No.CERTIFICADO(certificate No.): 070577

CLIENTE(customer): PLESA ANÁHUAC Y CIAS., S.A. DE C.V.

DIRECCION(address): AV. VALLE DE LAS ALAMEDAS # 66 O COL. SAN FCO. CHILPAN TULTITLÁN, EDO. DE MEXICO C.P. 54940

O.T. (order no.)	DIAMETRO (outside diam.)	ESPESOR (thickness)	GRADO (grade)	ESPECIFICACION (specification)	PROCESO (process)	PEDIDO (contract)	O. PREPARACION (preparation order)	PROVEEDOR (supplier)	FECHA (date)
23020	20.000"	0.500"	A 53 B	A.S.T.M.	DSAW	3204	B-148-2007	AHMSA	12/07/2007

TUBO (pipe) O SERIE (SERIAL)	COLADA (heat)	TYPE	LOC	PRUEBA DE TENSION (tensile test) UNIDADES (units)	ORIENTACION (orientation) 1	TAMAÑO (size) 3		BEND	HARDNESS	PRUEBA DE IMPACTO (impact test) °C ORIENTACION TAMAÑO ENERGY (Joule) 1 2 3 AVG	SHEAR AREA 1 2 3 AVG	DWTT SHEAR AREA 1 2 AVG	GRAIN SIZE	TYPE	LOC	(%) ANALISIS QUIMICO / chemical analysis (%) C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Ti	Nb	B	V	N	Als	Ca	PCM	CE
			6			80000									H	7	0.16	0.45	0.010	0.007	0.110	0.033	0.010	0.030	0.030	0.007	-	-	-	-	-	-	-	0.24
24	251937	H	7	57800		75800	35	0.76							P	7	0.15	0.42	0.010	0.006	0.109	0.030	0.010	0.020	0.020	0.010	0.003	0.008	0.0002	0.003	0.010	-	-	-	0.23
															P	7	0.14	0.42	0.009	0.006	0.109	0.030	0.010	0.020	0.030	0.010	0.006	0.008	0.0002	0.004	0.004	-	-	-	0.22
			6			80100									H	7	0.15	1.10	0.017	0.006	0.220	0.037	0.020	0.020	0.030	0.009	v	-	-	-	-	-	-	-	0.35
32	251406	H	7	54400		71500	42	0.76							P	7	0.15	1.02	0.012	0.004	0.210	0.036	0.016	0.020	0.028	0.008	0.002	0.005	0.0002	0.002	0.008	-	-	-	0.33
															P	7	0.14	1.05	0.015	0.006	0.200	0.034	0.016	0.018	0.026	0.008	0.005	0.006	0.0001	0.003	0.008	-	-	-	0.32
			6			78700									H	7	0.15	0.48	0.016	0.008	0.120	0.035	0.020	0.030	0.030	0.007	-	-	-	-	-	-	-	-	0.24
50	450758	H	7	52500		69000	41	0.76							P	7	0.14	0.42	0.014	0.006	0.120	0.034	0.018	0.026	0.028	0.008	0.003	0.006	0.0001	0.003	0.010	-	-	-	0.22
															P	7	0.15	0.43	0.016	0.005	0.110	0.036	0.018	0.030	0.029	0.004	0.005	0.007	0.0001	0.002	0.006	-	-	-	0.23
			6			71300									H	7	0.17	0.45	0.012	0.009	0.110	0.034	0.010	0.020	0.030	0.007	-	-	-	-	-	-	-	-	0.25
71	251936	H	7	51100		66300	44	0.77							P	7	0.13	0.42	0.010	0.006	0.100	0.033	0.009	0.018	0.027	0.006	0.006	0.005	0.0002	0.002	0.009	-	-	-	0.21
															P	7	0.15	0.44	0.012	0.008	0.110	0.035	0.008	0.016	0.026	0.005	0.006	0.006	0.0001	0.002	0.004	-	-	-	0.23
24	251937		6						OK																									
75	251937		6						OK																									

PRUEBA HIDROSTATICA: (hidrostatic test) PRESION: (pressure) 1050 Psi TIEMPO: (time) 10 SEC

ULTRASONIDO(U.T.): (ultrasonic) STANDARD DE REFERENCIA: F REFERENCE STANDARD

RAYOS-X (RT): (x-ray) PENETROMETRO (penetrometer): Nº 15 A.S.T.M.

NORMALIZADO DE SOLDADURA: (heat treatment weld) TEMPERATURA (temperature): N/A

REFERENCE STANDARD F: U.T. DRILLED HOLE 1/16", G: U.T. DRILLED HOLE 1/8", I: U.T. NOTCH N-8, J: U.T. NOTCH N-10 L: RT HOLE 1/16", N: RT HOLE 2-2T O: RT HOLE 2-4T

ORIENTACION(orientation):
1. TRANSVERSAL (transverse)
2. LONGITUDINAL (longitudinal)

TAMAÑO (size)
3.RECTANGULAR(rectangular)
4.CILINDRICA(round bar) 0.500"
5.CILINDRICA(round bar) 0.350"

LOCALIZACION (location)
6. SOLDADURA (weld)
7. METAL BASE (base metal)
8. ZONA AFECTADA (h.a.z.)
9. LINEA DE FUSION (fusion line)

TIPO DE PRUEBA (type)
H: COLADA (heat)
P: PRODUCTO (product)
R: REMUESTREO (recheck)

CERTIFICAMOS QUE EL MATERIAL DESCRITO HA SIDO HECHO DE ACUERDO CON LA ESPECIFICACION MENCIONADA Y QUE SUS RESULTADOS SON COMO APARECEN EN LOS REGISTROS DE LA COMPAÑIA
(WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE SPECIFICATION MENTIONED AND THAT THESE TEST RESULTS ARE AS THEY APPEAR IN RECORDS OF THIS COMPANY)

Control de Calidad (Quality Control)

TUBACERO, S.A. DE C.V. 04

REV. 2 May-07

F-TUME-013