



HYLSA S.A. DE C.V.
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CERTIFICADO DE TUBERIA

PIPE CERTIFICATE

O.T. (order no.) 33164	DIAMETRO (outside diam.) 16"	ESPESOR (thickness) 0.250	GRADO (grade) A53-B / A53-A	ESPECIFICACION (specification) ASTM	PROCESO (process) ERW	PEDIDO (contract) S/N	O. PREPARACION (preparation order) B-025-2002	PROVEEDOR (supplier) HYLSA	FECHA (date) 26/04/02
No. CERTIFICADO (certificate No.):							020178		
CLIENTE (customer):							HYLSA S.A. DE C.V.		
DIRECCION (address):							AV. GUERRERO No. 151 SAN NICOLAS DE LOS GARZA, N.L. C.P. 66452		

TUBERIA (Pipe)	SOLDAJE (Weld)	L O P C E	UNIDADES (units)	ORIENTACION (orientation)	TAMANO (size)	BEND	HARDNESS H	PRUEBA DE IMPACTO (Impact Test)			DMMT	TAMANO (size)	SHEAR AREA	SHEAR AREA	SHEAR AREA	T P O C	Mn	P	S	SI	AI	Cu	Cr	NI	Mo	TI	Nb	B	V	N	Als	Ca	PCM	CE	
								10 °C	50 °F	AVG																									1
7	15146	H 7	6	680	1	10	100	1	2	3	1	2	3	1	2	3	0.08	0.30	0.010	0.002	0.008	0.004	0.014	0.003	0.014	0.001	0.006	0.001	0.0002	0.001	-	-	0.004	0.10	0.14
		H 7	6	680	1	10	100	1	2	3	1	2	3	1	2	3	0.09	0.30	0.007	0.004	0.053	0.048	0.006	0.013	0.001	0.006	0.001	0.0002	0.002	-	-	0.004	0.10	0.14	
		H 7	6	680	1	10	100	1	2	3	1	2	3	1	2	3	0.08	0.29	0.007	0.002	0.056	0.044	0.010	0.001	0.001	0.006	0.001	0.0002	0.001	-	-	0.005	0.10	0.13	
40	29769	H 7	6	680	1	10	100	1	2	3	1	2	3	1	2	3	0.09	0.30	0.004	0.004	0.051	0.045	0.002	0.013	0.001	0.006	0.001	0.0002	0.002	-	-	0.005	0.10	0.13	
		H 7	6	680	1	10	100	1	2	3	1	2	3	1	2	3	0.09	0.28	0.008	0.002	0.062	0.058	0.014	0.016	0.001	0.007	0.001	0.0002	0.002	-	-	0.004	0.10	0.14	
117	29770	H 7	6	680	1	10	100	1	2	3	1	2	3	1	2	3	0.09	0.29	0.006	0.002	0.059	0.057	0.011	0.016	0.001	0.007	0.001	0.0002	0.002	-	-	0.007	0.10	0.14	

PRUEBA HIDROSTATICA: PRESION: 680 PSI TIEMPO: 10 SEC
 (hydrostatic test) (pressure) (time)

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

RAYOS-X (RT): PENETROMETRO (penetrometer) N/A

NORMALIZADO DE SOLDADURA: TEMPERATURA (temperature): 1600° F Min.
 (heat treatment)

REFERENCIA STANDARD: F: U.T. DRILLED HOLE 1/16" G: U.T. DRILLED HOLE 1/8"
 U.T. NOTCH N-5, J: U.T. NOTCH V-10 L: RT HOLE 1/16" N: RT HOLE 2.2T O: RT HOLE 2.4T

ORIENTACION (orientation):
 1. TRANSVERSAL (transverse)
 2. LONGITUDINAL (longitudinal)
 TAMANO (size)
 3. RECTANGULAR (rectangle) 1 1/2"
 4. CILINDRICA (round bar) 0.500"
 5. CILINDRICA (round bar) 0.350"
 LOCALIZACION (location)

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 LOS 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 THE COMPANY.)

Control de Calidad (Quality Control)

HYLSA S.A. DE C.V.