

Purchaser: TUBOS DE ACERO DE MEXICO S.A

INSPECTION CERTIFICATE

EN 10204 3.1B

E-No: MA-139 Purchase Order No: 3560014772 Job No:

D M Y Certificate No: 02/06/2005 T-2005740012

No.	MFG. No. (Heat Identification No.)	Product & Size	Quantity	Heat Treatment (Note 1)	Visual Examination	Dimensional Inspection	Specification for Material		Specification for Inspection													
							ASTM A312-03/ASME SA312-03 Made from Seamless Pipe	ASME B16.9														
1	05E10140	TWPB 6 S40	785/1 114	S	Good	Good																
2	05E10141	TWPB 6 S40	229/1 114	S																		
3	05B10164	TWPB 6 S90	80/195	S																		
4	05E10103	TWPB 6 S40	19/1 114	S																		
5	05E10104	TWPB 6 S40	81/1 114	S																		
							Chemical Composition %															
							C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	C.E.	YS	TS	E	
							X 100	X 100	X 100	X 1000	X 1000	X 100	X 100	X 100	X 100	X 1000	X 100	X 1000	X 100	MPa		%
							Min	100	100	1000	1000	100	100	100	1000	100	1000	100	240	415	30	HARDNESS MAX
							Max	100	100	1000	1000	100	100	100	1000	100	1000	100	240	415	30	197 HB : GOOD
							Material Heat No.		30	106	50	56	40	40	40	15	80	20				
1	J5K1220						18	20	33	12	6	3	2	5	1	C	1	28	312	470	60	
2	J5K1220						18	20	53	12	8	3	2	5	1	0	1	28	312	470	60	
3	61290						19	21	68	10	1	5	5	3	1	1	1	32	305	476	40	
4	J5L1524						19	19	55	16	8	2	2	6	1	0	1	30	310	465	45	
5	J5L1524						19	19	55	18	8	2	2	6	1	0	1	30	310	485	45	

(NOTE 1) A HOT FORMED WITH FINAL TEMPERATURE BETWEEN 620 C - 980 C. AIR COOLING
 N. END REMAINING 24 H. S. AIR COOLING S. STRESS RELIEVING AT 725 C. X RADIATION AIR COOLING ONLY.
 We hereby certify that the product described herein has been manufactured in accordance with the specifications concerned
 and also with the purchaser's requirements and that the test results shown herein are correct.

* 1 : "T" symbolized wall thickness in mm. * 2 : YS Yield strength TS = Tensile strength E = Elongation
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