



MANUFACTURER: TIANJIN PIPE (GROUP) CORPORATION
ADD: JINTANG ROAD DONGLI DISTRICT, TIANJIN, CHINA

TEL: 86-22-24801073
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QUALITY CERTIFICATE

item 9

QR-11-8.2.4-19

Licence No.:

No.: 14111562

1	Contract No.	TPCO-14611E				L/C No.					O.D.*W.T.	323.90*6.35				Packing	IN LOOSE									
	Order					Product	SEAMLESS STEEL LINE PIPE				Steel grade	PSL2 BR				Total pieces	7									
	P.O. No.	OS-F-OP-04: 43243				Port of desti.					Man. Method	HOT ROLLING SEAMLESS				Total metres										
	Standard	API SPEC 5L 44th 01-SAMMSS-035(04/05/2011)01-AMSS-022(03/07/2007)									Length range	10-13M				Total Tons	4.344									
2	Heat No.	Lot No.	Quantity				Delivery condition	Sample No.	Tensile test(MPa)										Impact test(J)							
			Pieces	Meters	Bundles	Tons			1*	Tem. °C	T.S.	Type	Y.S.	Elong.%	Shrink %	2*	Tem. °C	Size	AK1	Shear %	AK2	Shear %	AK3	Shear %	AVE	Shear %
	838378	100	7			4.344	heat expanding	100-7-139	A	25	500	Rt0.5	355	38.0		A	0	10*5	61	60	54	60	76	100	64	73
	Total	7				4.344		Note:	A:strip,L,bo=38.1mm Lo=50mm										A:V8/T							
3	Heat No.	Lot No.	Sample No.	HV10	Hardness test (inside)					Hardness test (middle)					Hardness test (outside)					NDE		Fla. test(1)	Fla. test(2)			
					1	2	3	4	AVE	1	2	3	4	AVE	1	2	3	4	AVE							
	838378	100	100-7-139		170.0	169.0	169.0	170.0	170.0	169.0	168.0	168.0	167.0	168.0	168.0	168.0	168.0	167.0	168.0		UT+UT/L3+L2/C	G	G			
4	Heat No.	Chemical composition % (L: Ladle analysis P:Product analysis)																			Hydro. Test					
	Material		C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Al	V	Nb	Ti	B	Ca	N	H	O	CE(PCM)	CE(IIW)				
	838378	L	0.14	0.20	1.03	0.009	0.003	0.09	0.09	0.01	0.09	0.033	0.03	<0.01	<0.01	<0.0005	0.0009					0.35	9.1MPa/10S			
	14Mn5V	P	0.14	0.19	1.02	0.010	0.003	0.08	0.09	0.02	0.10	0.029	0.03	<0.01	<0.01	<0.0005	0.0008					0.35				
		P	0.14	0.20	1.04	0.010	0.004	0.09	0.08	0.02	0.09	0.032	0.03	<0.01	<0.01	<0.0005	0.0011					0.35				
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	P																									
5	NDE (100%)	Visual and Dimension	Hydro. Test	Pipe End NDE	Pipe End Beveling	Residual Mag. Test	SSC	HIC	We hereby state that all pipes are manufactured and inspected according to above standards and order.														Seal for certification:			
	G	G	G	G	G	G																				

Note: EN10204 3.1

Remark: desti.=destination; Tem.=Temperature; speci.= specification; Man.=Manufacture; Fla.=Flattening; G=Good; Hydro.=Hydrostatic; Mag=Magnetic

No. _____ Date _____
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(FOR EXPORT ONLY)