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 CONTRACT(P/O) NO.(계약번호) : 27377
 PR NO.(주문서번호) : F180900121
 COMMODITY(제품명) : E.R.W. CARBON STEEL PIPE
 SPECIFICATION(제품규격) : ASTM A53 B

검사증명서

MILL TEST CERTIFICATE

EN 10204 TYPE 3.1 - 2004



울산공장 : 울산광역시 북구 열포로 706
 706, Yeompo-ro, Buk-gu, Ulsan, Korea

CUSTOMER(고객사): 현대중합상사(주)

No.	TYPE OF PIPE END ※1	SIZE OUT-DIA×THICK×LENGTH (외경×두께×길이)	PCS (본)	WEIGHT (KG)	TOTAL LENGTH (M)	HEAT No.	Hydrostatic Test		Spec. ※2	Tensile Properties(Gage Length : 2 inch)	Hardness Test		Hardness Test & CVN Impact Test					D.W.T Test(°C)		
							Pressure	Time			Max. Value	CVN Impact Test(°C)		Shear Area(%)						
												Absorbed Energy(Joule)				Shear Area(%)	Shear Area(%)			
							PSI	SEC			Min. Max.	1	2	3	avg		1	2	avg	
1	EB BE	12" X 0.500 " X 6.150 M	5	2,996	30.75	SB39329	1650	5	T	474	535	345								
2	EB BE	12" X 0.500 " X 6.150 M	25	14,980	153.75	SQ82595	1650	5	T	473	495	349								
		TOTAL	30	17,976	184.5															

No.	Heat No.	Spec. ※4	Chemical Composition(%)													Zn-Coating Test		HC-Test	H.I.C Test			S.S.C.O Test	Remark		
			2 : ×100 3 : ×1000 4 : ×10000													Zn Coating	Copper Sulfate Test	Collapse Pressure	CLR	CTR	CSR				
			C	Si	Mn ※7	P	S	Cu	Ni	Cr	Mo	V	CM3 ※10					Time	Result	psi	%			%	%
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.			Max.	Min.
1	SB39329	H	17	1	80	9	4																	※1) Type of pipe end(관종) EB:ERW Black BE:Bevel End ※2) L: Longitudinal, T: Transverse ※3) B: Base, W: Weld Line, H: Heat Affected Zone ※4) H: Heat(Ladle) Analysis, P: Product Analysis ※7) For each reduction of 0.01% below the specified C max. an increase of 0.06% Mn above the specified max. will be permitted up to a max. of 1.65% ※10) CM3=Cu+Ni+Cr+Mo+V ※ SPEC YEAR - ASTM A53(2012ED)	
		P	17	1	83	9	4	3	1	2	2	2	65												
		P	17	1	83	9	3	3	1	2	2	2	68												
2	SQ82595	H	17	1	77	12	2																		
		P	17	1	74	11	6	1	1	2	3	2	42												
		P	17	1	74	10	5	1	1	2	3	2	40												

C O P Y

Heat Treatment	Non-Destructive Test (U.T)	Flattening / Bending Test	Visual & Dimension				
GOOD	GOOD	GOOD	GOOD				

본 제품은 관련 규격에 합격되었음을 보증합니다.

WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN ACCEPTED IN ACCORDANCE WITH THE PRESCRIBED SPECIFICATION AND ORDER.

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SURVEYOR

QA Manager

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