

# 검 사 증 명 서

## MILL TEST CERTIFICATE

### EN 10204 TYPE 3.1 - 2004



현대제철주식회사  
HYUNDAI STEEL

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No.	TYPE OF PIPE END	SIZE OUT-DIA x THICK x LENGTH (외경 X 두께 X 길이)	PCS (분)	WEIGHT (KG)	TOTAL LENGTH (F)	HEAT No.	Hydrostatic Test		Spec.	Tensile Properties (Gage length : 2 inch)	Hardness Test & CVN Impact Test				D.W.T Test (°C)								
							Pressure	Time			Tensile Strength		Yield Strength	Y/R Rate	E.L.	Hardness Test	CVN Impact Test (°C)				Shear Area(%)		
											Base	Weld					Absorbed Energy (Joule)				Shear Area(%)		
							PSI	SEC			Mpa	Mpa	Mpa	%	%	1	2	3	Avg	1	2	Avg	
1	EB BE	20" X 0.250" X 21.000 F	1	507	21.0	G79610	540	10	T	470	506	319											
2	EB BE	20" X 0.250" X 21.000 F	24	12.162	504.0	SB59057	540	10	T	459	475	314											
		TOTAL	25	12.669	525.0																		

No.	Heat No.	Spec.	Chemical Composition * 2:x100 3: x1000 4:x10000										Zn-Coating Test		HC-Test	H.I.C Test			S.S.C.C Test	Remark			
			C	Mn #7	P	S	Cu	Ni	Cr	Mo	B	CM1 #8	CM2 #9	Zn Coating	Copper Sulfate Test	Collapse Pressure	CLR	CTR			CSR		
			2	2	3	3	2	2	2	2	4	2	2	Time	Result	psi	%	%			%		
1	G79610	H	17	76	11	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 max. for C, an increase of 0.05% above the specified max. for Mn is permissible, up to a max. of 1.65% * 8) CM1=Nb+V * 9) CM2=Nb+V+Ti * SPEC YEAR-API 5L 45th Edition(2013)/ASTM A53(2012)
		P	16	76	12	4	4	2	4	TR	1	TR	TR										
		P	16	76	12	5	4	2	4	TR	2	TR	TR										
2	SB59057	H	14	68	11	4																	
		P	13	72	11	5	1	3	3	1	2	TR	TR										
		P	13	72	12	5	1	3	3	1	2	TR	TR										



Heat Treatment	Non-Destructive Test (U.T)	Flattening	Visual & Dimension	Residual Magnetism (Gauss)					
GOOD	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.  
 \* 본 검사증명서에 명기된 규격용도의 사용시 안전상 문제가 발생할 수 있으며, 검사증명서 위.변조시 사문서 위조로 불이익을 당하실 수 있습니다.

SURVEYOR

**H.K. CHOI**

Q.A Manager