

# 검사증명서

## MIL TEST CERTIFICATE

EN10204 3.1/ISO 10474 3.1B

CUSTOMER(고객사) : PLESA ANHUIAC Y CIAS, S.A. DE C.V.



출산공장 : 울산광역시 북구 영포로 706  
706, Yeompo-ro, Buk-gu, Ulsan, Korea



No.	TYPE OF PIPE END	SIZE OUT-DIA X THICK X LENGTH (외경 x 두께 x 길이)	PCS	WEIGHT (KG)	TOTAL LENGTH (M)	HEAT No.	Hydrostatic Test		Tensile Properties(Gauge Length : 2 inch)				Hardness Test		Hardness Test & CAI Impact Test																																																																																																
							Spec. Min.	Spec. Max.	Base	Yield	Strength	Yield Ratio	EL	Max Value	Min Value	CAI Impact Test(C)	Shear Area(%)																																																																																														
1	EB BE	15" X 0.281" X 20.177 F	55	23,648	1,109.735	P12913	740	5	492	497	385	42	165	174	171																																																																																																
		TOTAL	55	23,648	1,109.735																																																																																																										
<p>Chemical Composition(%)</p> <table border="1"> <tr> <th>Spec. Min</th> <th>C</th> <th>Si</th> <th>Mn</th> <th>P</th> <th>S</th> <th>Cu</th> <th>N</th> <th>Cr</th> <th>Mo</th> <th>V</th> <th>Ti</th> <th>Nb</th> <th>B</th> <th>CAI #8</th> <th>CAI #9</th> <th>Zn Coating</th> <th>HC-Test</th> <th>HIC Test</th> <th>SS C.O. Test</th> </tr> <tr> <td>#4</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>3</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Max</td> <td>26</td> <td></td> <td>120</td> <td>30</td> <td>30</td> <td>50</td> <td>50</td> <td>50</td> <td>150</td> <td></td> <td></td> <td></td> <td>10</td> <td>60</td> <td>150</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>Zn-Coating Test</p> <table border="1"> <tr> <th>Coating</th> <th>Coating</th> <th>Coating</th> <th>Coating</th> </tr> <tr> <td>OK</td> <td>OK</td> <td>OK</td> <td>OK</td> </tr> </table> <p>HC-Test</p> <table border="1"> <tr> <th>Coating</th> <th>Coating</th> <th>Coating</th> <th>Coating</th> </tr> <tr> <td>OK</td> <td>OK</td> <td>OK</td> <td>OK</td> </tr> </table> <p>HIC Test</p> <table border="1"> <tr> <th>Coating</th> <th>Coating</th> <th>Coating</th> <th>Coating</th> </tr> <tr> <td>OK</td> <td>OK</td> <td>OK</td> <td>OK</td> </tr> </table> <p>SS C.O. Test</p> <table border="1"> <tr> <th>Coating</th> <th>Coating</th> <th>Coating</th> <th>Coating</th> </tr> <tr> <td>OK</td> <td>OK</td> <td>OK</td> <td>OK</td> </tr> </table>																		Spec. Min	C	Si	Mn	P	S	Cu	N	Cr	Mo	V	Ti	Nb	B	CAI #8	CAI #9	Zn Coating	HC-Test	HIC Test	SS C.O. Test	#4	2	2	2	3	3	2	2	2	3	3	3	3	4	3	3						Max	26		120	30	30	50	50	50	150				10	60	150						Coating	Coating	Coating	Coating	OK	OK	OK	OK	Coating	Coating	Coating	Coating	OK	OK	OK	OK	Coating	Coating	Coating	Coating	OK	OK	OK	OK	Coating	Coating	Coating	Coating	OK	OK	OK	OK
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<p>Remarks</p> <p>* (1) Type of pipe end(관종) EB:ERW, BE:Bevel End</p> <p>* (2) L: Length, T: Tensile</p> <p>* (3) B: Base, W: Weld Line, H: Heat Affected Zone</p> <p>* (4) H: Heat(Archet) Analysis, P: Product Analysis</p> <p>* (5) 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%</p> <p>* (6) CAI=#1~#4, HV</p> <p>* (7) CR=#1~#4, V-TI</p> <p>* SPEC YEAR - API 5L 45th Edition(2013)/ASTM A53(2012)/SKES 5A53(2015)</p> <p>* License No. : SL-0026</p> <p>* Address to NACE MR0175(2013ED) / ISO 15156</p> <p>* Address to NACE MR0103 / ISO 15156</p> <p>* API 5L Annex E(ND B) - O.D.6" ECT(1) 8mm hole, O.D.6" UT(3) 2mm hole</p> <p>* Heat treatment : Normalizing(871~1103°C, Holding time : max(30min))</p>																																																																																																															

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 You are able to check an original electronic document at HyundaiSteel's customer portal( http://smhyundai-steel.com/cs/cm/ogn.jsp ) \* QRcode scanner App : QRread

HYUNDAI STEEL  
 G O P Y  
 HJ K CHOI  
 QA Manager