



Mill Test Certificate

Certificate No. : 161219-FZ04PS-0010A1-0001
 Date of Issue : Jan., 03, 2019
 Post Treatment : PL (Cr-Free Phosphate)

Order No. : 01S3465043
 Supplier : SUNGJIN CO., LTD.
 Customer : STEMCOR

PO No. : D4B0054
 Commodity : EG COIL(ZN)
 (4501076794)

Spec. & Type : DIN EN 10152 DC01+ZE

4501076794

Size	Product No.	Quantity	Weight (kg)	Heat No.	Position	Tensile Test			Coating Metal Bend Test	Coating Weight (g/m ²)			Division	Chemical Composition				
						YP (MPa)	TS (MPa)	EL (%)		Zn Upper	Zn Lower	C (%)		Si (%)	Mn (%)	P (%)	S (%)	
1.00x1250xC	CBL5097A	1	9,710	SB43585	B	198	311	39	Good	18.0	18.1	L	0.0151	0.020	0.144	0.0073	0.0040	
1.00x1250xC	CBL5097B	1	9,700	SB43585	B	198	311	39	Good	18.0	18.1	L	0.0151	0.020	0.144	0.0073	0.0040	
1.00x1250xC	CBL5097C	1	9,470	SB43585	B	198	311	39	Good	18.0	18.1	L	0.0151	0.020	0.144	0.0073	0.0040	
1.00x1250xC	CBL5092A	1	9,710	SB43587	B	195	308	39	Good	18.5	18.5	L	0.0150	0.022	0.148	0.0092	0.0054	
1.00x1250xC	CBL5092B	1	9,690	SB43587	B	195	308	39	Good	18.5	18.5	L	0.0160	0.022	0.148	0.0092	0.0054	
1.00x1250xC	CBL5092C	1	9,470	SB43587	B	195	308	39	Good	18.5	18.5	L	0.0160	0.022	0.148	0.0092	0.0054	
1.00x1250xC	CBL5095A	1	9,720	SB43587	B	197	309	41	Good	18.1	17.8	L	0.0160	0.022	0.148	0.0092	0.0054	
1.00x1250xC	CBL5095B	1	9,730	SB43587	B	187	309	41	Good	18.1	17.8	L	0.0160	0.022	0.148	0.0092	0.0054	
1.00x1250xC	CBL5095C	1	9,430	SB43587	B	197	309	41	Good	18.1	17.8	L	0.0160	0.022	0.148	0.0092	0.0054	
1.00x1250xC	CBL5098A	1	9,730	SB43587	B	196	309	40	Good	17.9	18.6	L	0.0160	0.022	0.148	0.0092	0.0054	
1.00x1250xC	CBL5098B	1	9,740	SB43587	B	196	309	40	Good	17.9	18.6	L	0.0160	0.022	0.148	0.0092	0.0054	
1.00x1250xC	CBL5098C	1	9,480	SB43587	B	196	309	40	Good	17.9	18.6	L	0.0160	0.022	0.148	0.0092	0.0054	
*** Sub Total (010) ***		12	115,580 (kg)			< Not Welded >												
1.00x1500xC	CBL5129A	1	10,450	SB43580	B	197	318	40	Good	17.9	17.9	L	0.0184	0.021	0.156	0.0086	0.0063	
1.00x1500xC	CBL5129B	1	10,460	SB43580	B	197	319	40	Good	17.8	17.9	L	0.0184	0.021	0.156	0.0086	0.0063	
1.00x1500xC	CBL5129C	1	10,080	SB43580	B	197	319	40	Good	17.9	17.9	L	0.0184	0.021	0.156	0.0086	0.0063	
1.00x1500xC	CBL51326A	1	10,060	SB43580	B	192	319	39	Good	17.7	18.3	L	0.0184	0.021	0.156	0.0086	0.0063	
1.00x1500xC	CBL51326B	1	10,080	SB43580	B	192	319	39	Good	17.7	18.3	L	0.0184	0.021	0.156	0.0086	0.0063	
1.00x1500xC	CBL51326C	1	10,000	SB43580	B	192	319	39	Good	17.7	18.3	L	0.0184	0.021	0.156	0.0086	0.0063	
*** Sub Total (020) ***		8	81,120 (kg)			< Not Welded >												
1.50x1250xC	CBL5270A	1	9,680	SB43587	B	209	308	40	Good	17.7	17.5	L	0.0160	0.022	0.148	0.0092	0.0054	
1.50x1250xC	CBL5270B	1	9,680	SB43587	B	209	308	40	Good	17.7	17.5	L	0.0160	0.022	0.148	0.0092	0.0054	
1.50x1250xC	CBL5270C	1	9,180	SB43587	B	209	308	40	Good	17.7	17.5	L	0.0160	0.022	0.148	0.0092	0.0054	
1.50x1250xC	CBL5448A	1	9,420	SB43590	B	205	307	40	Good	17.6	17.5	L	0.0170	0.022	0.150	0.0085	0.0045	
1.50x1250xC	CBL5448B	1	9,460	SB43590	B	205	307	40	Good	17.6	17.5	L	0.0170	0.022	0.150	0.0085	0.0045	
1.50x1250xC	CBL5448C	1	8,940	SB43590	B	205	307	40	Good	17.6	17.5	L	0.0170	0.022	0.150	0.0085	0.0045	

* Position - T : Top, M : Middle, B : Bottom
 * Tensile Test Direction : Transversal, Gauge Length : 80mm (Rectangular)
 * YP Method : Upper Point
 * Division - L : Ladle Analysis

Test Certificate is issued according to EN10204 3.1.

We hereby certify that the material herein has been made in accordance with the order and above specification.

Legal sanction can be imposed on forging. Improper use of product can cause safety issues.

Surveyor To :

S.S. Ahn



Mill Test Certificate

Certificate No. : 181219-FZ01PS-0010A1-0002
 Date of Issue : Jan., 03, 2019
 Post Treatment : PL (Cr-Free Phosphate)

Order No. : 01S3465043

PO No. : D4B0054

Supplier : SUNGJIN CO., LTD.

(4601078794)
 Commodity : EG COIL(ZN)

Customer : STEMCOR

Spec & Type : DIN EN 10152 DC01+ZE

4501076794

Size	Product No.	Quantity	Weight (kg)	Heat No.	Position	Tensile Test			Coating Metal Bond Test	Coating Weight (g/m ²)			Division	Chemical Composition				
						YP (MPa)	TS (MPa)	EL (%)		Zn Upper	Zn Lower	C (%)		Si (%)	Mn (%)	P (%)	S (%)	
1.50x1250xC	CBL5454A	1	9,580	SB43590	B	209	306	41	Good	18.1	18.3	L	0.0170	0.022	0.150	0.0095	0.0045	
1.50x1250xC	CBL5454B	1	9,510	SB43590	B	209	306	41	Good	18.1	18.3	L	0.0170	0.022	0.150	0.0095	0.0045	
1.50x1250xC	CBL5454C	1	9,080	SB43590	B	209	306	41	Good	18.1	18.3	L	0.0170	0.022	0.150	0.0095	0.0045	
1.50x1250XC	CBM0133A	1	9,420	SB43985	B	203	307	40	Good	19.1	18.7	L	0.0139	0.023	0.143	0.0078	0.0060	
1.50x1250XC	CBM0133B	1	9,410	SB43985	B	203	307	40	Good	19.1	18.7	L	0.0139	0.023	0.143	0.0078	0.0060	
1.50x1250XC	CBM0133C	1	9,250	SB43985	B	203	307	40	Good	19.1	18.7	L	0.0139	0.023	0.143	0.0078	0.0060	
*** Sub Total (940) ***		12	112,570 (kg)			< Not Welded >												
1.50x1500XC	CEL5359A	1	10,440	SB43580	B	211	318	39	Good	17.7	17.5	L	0.0184	0.021	0.158	0.0086	0.0063	
1.50x1500XC	CEL5359B	1	10,390	SB43580	B	211	318	39	Good	17.7	17.5	L	0.0184	0.021	0.158	0.0086	0.0063	
1.50x1500XC	CEL5359C	1	9,850	SB43580	B	211	318	39	Good	17.7	17.5	L	0.0184	0.021	0.158	0.0086	0.0063	
1.50x1500XC	CBM1428A	1	9,850	SB43580	B	192	316	39	Good	18.1	18.7	L	0.0184	0.021	0.158	0.0086	0.0063	
1.50x1500XC	CBM1428B	1	9,850	SB43580	B	192	316	39	Good	18.1	18.7	L	0.0184	0.021	0.158	0.0086	0.0063	
1.50x1500XC	CBM1427A	1	10,900	SB43599	B	197	306	40	Good	17.6	17.2	L	0.0180	0.023	0.150	0.0069	0.0077	
1.50x1500XC	CBM1427B	1	10,910	SB43599	B	197	306	40	Good	17.6	17.2	L	0.0180	0.023	0.150	0.0069	0.0077	
1.50x1500XC	CBM1427C	1	10,270	SB43599	B	197	306	40	Good	17.6	17.2	L	0.0180	0.023	0.150	0.0069	0.0077	
*** Sub Total (940) ***		9	92,150 (kg)			< Not Welded >												
2.00x1000XC	CEL3897A	1	11,880	SB43082	B	219	303	43	Good	17.4	18.2	L	0.0165	0.024	0.143	0.0093	0.0080	
2.00x1000XC	CEL3897B	1	11,380	SB43082	B	219	303	43	Good	17.4	18.2	L	0.0165	0.024	0.143	0.0093	0.0080	
*** Sub Total (950) ***		2	23,260 (kg)			< Not Welded >												
*** Grade Total ***		41	404,660 (kg)			< Not Welded >												
*** Grand Total ***		41	404,660 (kg)			< Not Welded >												

* Position - T : Top, M : Middle, B : Bottom
 * Tensile Test Direction : Transverse, Gauge Length : 80mm (Rectangular).
 * YP Method : Upper Point
 * Division - L : Lacie Analysis

Test Certificate is issued according to EN10204 3.1.

We hereby certify that the material herein has been made in accordance with the order and above specification.

Legal sanction can be imposed on forging. Improper use of product can cause safety issues.

Surveyor To :

S.S. Ahn

POSCO

Pohang Works, 5262, Donghaean-ro, Nam-gu, Pohang-si, Gyeongsangbuk-do, 37977, Korea

Chief of material testing section

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Ahn, Seung Soo