KUKJE st

INDEX

1 General

- 1-1 Company Introduction
- 1-2 History

3 Product

- 3-1 Guardrail
- 3-2 Bridge Barrier
- 3-3 Angle adjustable fence
- 3-4 Footbridge

2 Business

- 2-1 Production capacity
- 2-2 Main Products

- 4 Supplies
- 04 Supply of products
- 5 Certificate and Patent 05 Certificate and Patent

INTRODUCTION (1/2) General

Company name	KUKJE ST
License No	308-81-13960
CEO	Kyong Bai, Lee
Establishment date	1990
Employee	53
Address	81, Dongsansaneopdanji-ro, Yeonmu-eup, Nonsan-si, Chungcheongnam-do, Republic of Korea (zip code : 33010)
Type of business	 Manufacturing business Specialty construction business (metal structure)
Business item	Guardrail, Bridge barrier, Fence, Footbridge
Homepage	http://www.kukjest.com
	sales@kukjest.com



General

Location 81, Dongsansaneopdanji-ro, Yeonmu-eup, Nonsan-si, Chungcheongnam-do, Republic of Korea

Area 17,889 m² / Three factories & One office building



1-2 HISTORY General

- Established KUKJE ST
- Nonsan factory's expansion of company (area 8,264 m²)
- Awarded as Best Mid-sized Innovative Company [PPS]

- Performance certification of Foot bridge [PPS]
- Awarded as Technology Innovative [PPS]
- Registration excellent product about sidewalk for bridge[PPS]
- Awarded as IP Star company [RIPC, Regional Intellectual Property Center]



PRODUCTION CAPACITY Business

Guardrail

- Daily production 4km
- Annual production
 - 1,000km

2-1

Fence / Barrier

- Daily production 800m
- Annual production
 250km

AL melting

- Daily production 4ton
- Annual production

1,200ton

2-2 MAIN PRODUCTS Business



GUARDRAIL

Products

GUARDRAIL is made of PosMAC

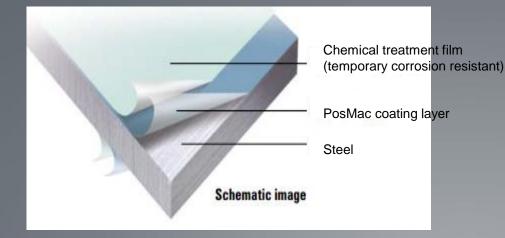


What is PosMAC ?

3-1



PosMAC(POSCO Magnesium Aluminum alloy Coating product) is <u>a ternary alloy coated steel (Zn-3% Mg-2.5% AL)</u> with high corrosion resistance developed with POSCO's own technology.



Product characteristics

- PosMAC is a corrosion resistant products that is 5 to 10 times stronger resistance than that of a normal hot-dip galvanized steel sheet(Gi, GI(H)) with the same coating weight. PosMAC has an excellent crosssection corrosion resistance; normal thick plating products can be replaced with this product.
- The same processing, assembly and painting process can be applied to PosMAC as one would apply to GI.

GUARDRAIL Products

3-1

Comparison to corrosion resistance between PosMAC and Galvalume

SST	PosMAC		Galvalume		
	60g/ m²	80g/ m²	500g/ m²	540g/ m²	580g/ m²
300 Hr					
1300 Hr					

SST 1cycle : Salt spray 2hr -> Dry 4hr -> Damp 2hr



Products

Vehicle impact test

1) Performance test of strength







2) Performance test of passenger protection







3-1 GUARDRAIL & Bridge Barrier Products

Performance standard of vehicle impact test

1) Test condition - Strength

Grade	Speed (km/h)	Weight (kg)	Angle	Impact Energy (KJ)
SB2	65	8,000	15	90
SB4	- 65 ·	14,000		160
SB5	80			230

2) Test condition - Passenger protection

Grade	Speed (km/h)	Weight (kg)	Angle	AIS*
SB2	90			
SB4	80	1,300	20	THIV : 33 km/h PHD : 20g
SB5	100			

* AIS : Abbreviated Injury Scale

Guardrail type

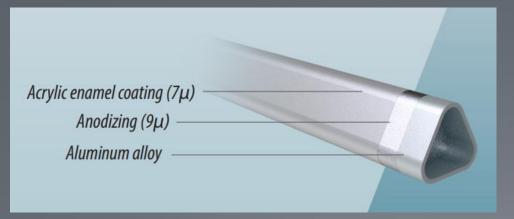
Туре	Guardrail	Bridge barrier
Material	PosMac	Aluminum

3-2

BRIDGE BARRIER

Products

Aluminum Alloy



The bridge barrier is made of an anodized and acrylic enamel laminated aluminum which has a semi-permanent resistance to corrosion



3-2

BRIDGE BARRIER

Products

Vehicle impact test

1) Performance test of strength



2) Performance test of passenger protection







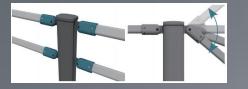
ANGLE ADJUSTABLE FENCE

Products

1

Rail Bracket

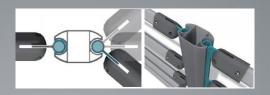
3-3



Rail Bracket allows adjusting the fence up and down easily so the fence can be installed even at the sloped areas without any product modifications so it maintains its performance.

Rotating Bracket allows adjusting the fence left and right easily so the fence can be installed even at the curved areas without any product modifications so it maintains its performance.

Rotating Bracket





Products



05

CERTIFICATE & PATENT



Specific Certification of Certification of quality Certification of quality Certificate of patent Certificate of patent - approved exporter excellent product CERTIFICATE OF PATENT CERTIFICATE OF PATENT Certificate No. : 27-323 Certificate No. : 27-388 CERTIFICATE OF COMPANY-SPECIFIC APPROVED EXPORTER Certificate of Designation ○ 오 초 (令)(4月)(4日)(4日)(4日)((Name of Despany) EXE MADINGSY & MCNL CO LD, ○ 주 송 · 유달 동산시 월부턴 선생은 408-1 (Address) Certificate of Quality Certificate of Quality of Excellent product (Excellent Performance Certification) (Excellent Performance Certification) Patent Number 10-1615320 Patent Number 10-1759651 10-2015-0138597 10-2016-0140093 ○ 대 표 적 : 여주에 (Bupresentative) GIE GUNG 842) ○ 인 문 변 호 (Customs Anthonivation So.) : 120-17-200224 Company : Rokje Machinery & Metal Co., Ltd. Company : Kulije Machinery & Metal Co., Ltd. Films Date 2015.10.01. Him Date 2016. 10. 26. 2017. 07. 13. Ø President : Lee, Kyung-Bae President : Los. Kyung-Bae Sefety Exhanced Modular Footbridge Kukje Machinery & Metal Co., Ltd. 2016. 04. 19. 이 안문수 및 전전(Validity Period) (3017년06월29월 ~ 2022년35월28월 Address 1 113-07, Beolgaic-tra, Beolgaic-myean, Norsan-ai, Osmarlanengaure-da, Repúblic el Korea Address : 113–47, Beolgok-ro, Beolgok-royeen, Noman-si, Daugcheogram-do, Republic et Korea Porenania Lee Krang-bar the low-tion action structure for a bent of deck road Visity of Version December 24, 2013 ~ December 23, 2018 Conference 2015208 to investor subsuct ability and safety improvements with footbridge 과 영제를 '자유무역불량의 이행을 위한 문제법의 특례에 관한 법률, 제12조1% 에 야하 업체별 원산지선물수를가요 인증합니다. Ŀ Product : Mohile and adjustable handrall Valid Thea : September 29, 2016 - September 28, 2019 Product : Expended Foot bridge with reproved insidubility and Remove Kulije Machinery & Metal Co., 170(161111-******) 131-47. Badgabirs, Bedgabirsyson, Nansan S. Changcheongnam-dis, Republic of Kome Parenes Kakje Machinery & Metal Co., 17D.(161313.-******) 133-07, Backgok-m, Bedgok-myson, Nersan-si, Osangsheoregnam-dis, Republic of Kons Valid Thra : May 22, 2014 - May 21, 2017 This is to certify that the above mentioned product was Internation RECONSIGNAL, LEE 2011, Cheoryges-ma, Sec-ges, Datejeon, Republic of Kome designated as an Excellent Product in accordance with Investor KYONG-BAL LEE 2011, Cheorges-rs, Seo-gu, Daginor, Republic of Konsa This certification is in accordance with Article 13 of Act on Facilitation of Purchase of Small and Medium Enterprise-Manufactured Products and Support for Development of Their Markets. This certification is in accordance with Article 15 of Act on Facilitation of Purchase of Small and Medium Enterprise-Manufactured Products and Support for Development of Their Markets. Article 9 Paragraph 2 of the Government Procurement Act and Article 18 of the Enforcement Decree thereof This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office. This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office. 2017-405-92295 December 24, 2015 Administrator Lee, Shi-Hee Administrator Lee, Shi-Heegy 4 2017.09.22. 2017. 09. 22. 6 ADVISION KIM Sangkyu Kim Sangkyu 9 Small and Midium Business Administration COMMISSIONER. KOREAN INTELLECTUAL PROPERTY OFFICE 대구세관장 COMMESSIONER, KOREAN INTELLECTUAL PROPERTY OFFICE Small and Midium Business Administration Republic of Korea Head of DAEGU Customs 특허청 특허청 日元王 日元里 Korean Intellectu Donasty Office Koman Intellects

THANK YOU