

PARTNER

DK DONGSHIN CO.LTD

Our customer service is always first think

### Leading a new generation of trend & coated steel sheet

Based on our powerful will & driving force, through the technical development and cultivating talented men, DK DONGSHIN grew up as the world best PCM (Pre-Coated Metal) specialty company. We are specialized Multi-color printed steel sheet with beautiful colors, various patterns and textures for semi-permanent construction interior & exterior materials and high quality home appliances. We make our maximum effort to provide the best quality products that satisfy our customers under the goal of being the world leader in steel sheet coating industry.

### History

1976.07	Establishment of Company	2004.11	Awarded the 100 Million dollar export prize
1982.09	Started manufacturing LAMITAL	2005.01	Innovative Technology Award 2004.
1990.11	Started manufacturing PRINPIA	2005.03	Acquired America Bureau of Shipping
1995.12	Completed 'L' CCL at Pohang Factory		Certification (ABS)
1996.07	Obtained ISO 9001 certification	2005.05	Acquired Den Norske Veritas Register
1998.07	Completed EGL at Pohang Factory		Shipping Certification (DNV)
2004.01	Completed 'P' CCL at Pohang Factory	2005.09	6th Innovative Technology Award,
2004.07	Korean World-Class Product Award 2004		silver prize certification
	was awarded by the Minister of Commerce	2007.03	Acquired Lloyd Register of Shipping Certification (LR)
2004.09	Obtained KSA 14001 / ISO 14001 certifications	2007.03	Acquired BeriStar- BV Certification (BV)
2004.10	Acquired Korea Register	2008.05	Established & New Company name DK DONGSHIN
	of Shipping Certification	2010.11	Awarded 50 million dollar export prize
2004.10	Acquired Korea Register of Shipping Certification	2011.	Awarded 70 million dollar export prize
2004.11	Completed Technical Research Center	2012.	Awarded 100 million dollar export prize



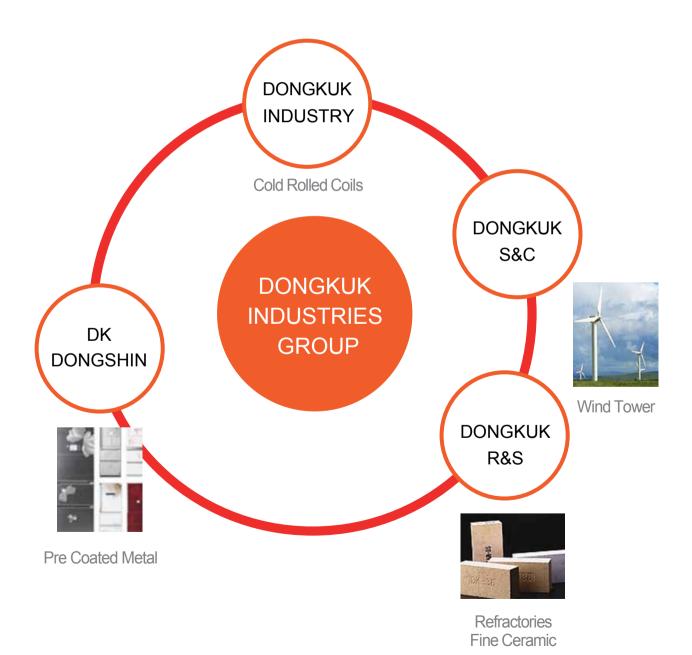








Dongkuk Industries Group



### DongKuk Industries

DongKuk Industries were established in 1967 as Daewon-sa and try to do our best to be a global leading cold rolled steel maker continuously. Pohang factory is supplying 350,000 ton of cold rolled specail yearly through state of the art facilities. Products are alive with you whenever you ride in your car.



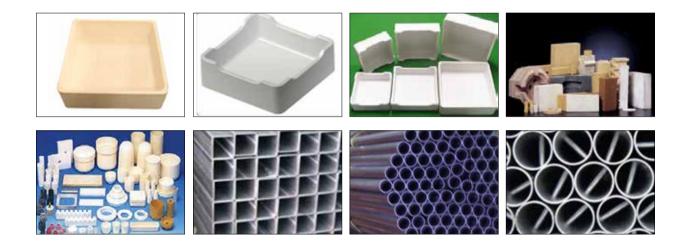
### DongKuk S&C

DongKuk S&C extends business segment from wind tower business to wind energy generation, new renewable energy business etc. We are trying to do our best to be a global eco-friendly company to establish sustainable energy system because of high oil price, environmental polution, resoruce exhaustion and supporting policy of government scale now.



### DongKuk R&S

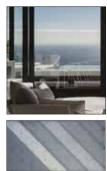
DongKuk R&S has speciality in refractory, fine ceramics as a new future opportunity of group. We are trying to do our best to be a leading company in the future.



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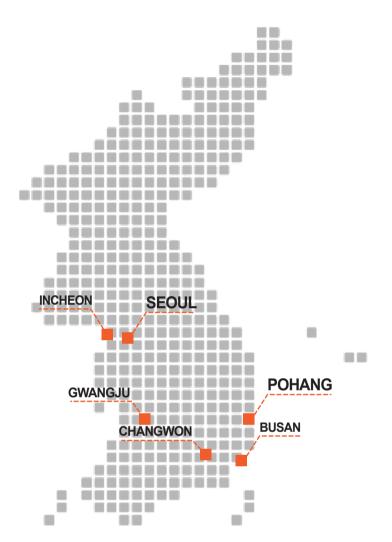








### Location



# SEOUL

Design | Sales and Marketing

Add : 11F, 46, Dadong-Gil, Jung-Gu, Seoul Tel : 82-2-522-7870 Fax : 82-2-522-7876



R&D | Production | Administration Support

Add : 154, Daesong-Ro, Nam-Gu, Pohang, Gyong-Buk Tel : 82-54-286-0050 Fax : 82-54-286-0176

### BRANCH OFFICE GWANGJU

Sales and Marketing

Add : #7, 277, Mujin-daero, Gwangsan-gu, Gwangju Tel : 82-262-953-0310 Fax : 82-62-953-0311



Sales and Marketing

Add : Hyundai Official, 55, Jungang-daero, Seongsan-gu, Changwon, Gyong-Nam Tel : 82-55-284-8089 Fax : 82-55-262-9355

Company introduction

### DK DONGSHIN CO.LTD

# **U\$ 1,000,000,000** DONGKUK INDUSTRIES GROUP



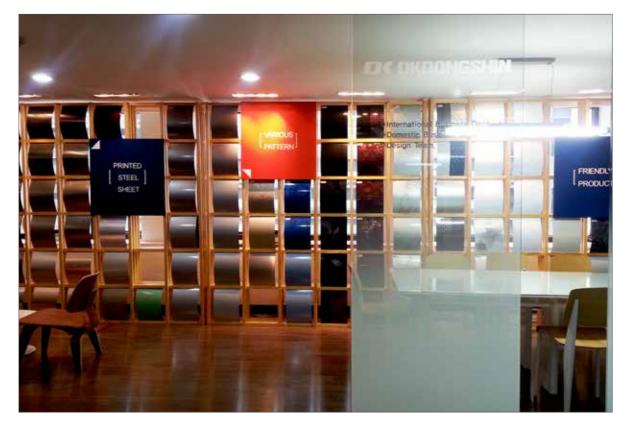








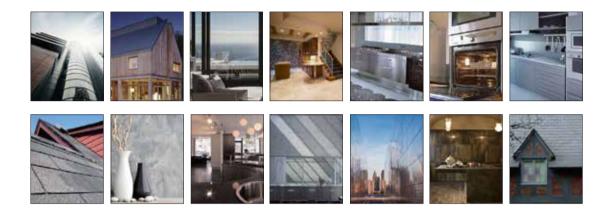
### **DK DONGSHIN SHOW ROOM**





### **Products Descriptions**

NEW PRE COATED METAL	- ILLUSIA
PRE COATED METAL	– PRINPIA   PRINTEX   UVPIA
MONO PRE COATED METAL	- COLOR SHEET   TOPRITE   EMBO
LAMINATING METAL	– LAMITAL   PETLITE   METALITE



#### Range of Application

Home appliances
Construction material

- Outer case of refrigerator, washing machine, microwave oven
- Interior and exterior panel for building, Roof, Ceiling, Fire door, Office furniture, Partition

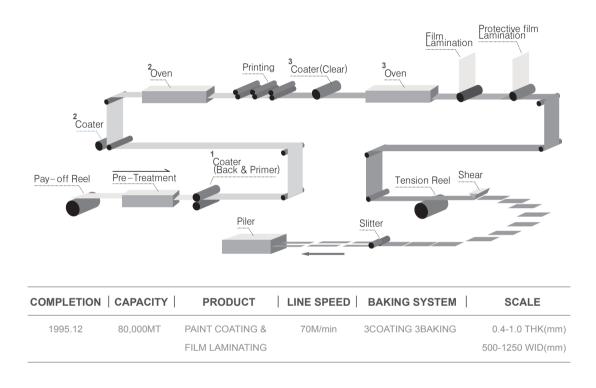
### Main customers

Through the businesses with the global leading companies, DK Dongshin is growing up as a global company with the recognition of its product qualities and performances.

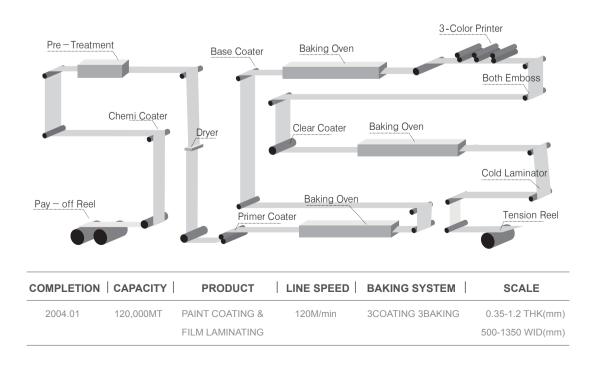
DOMECTIC	_	SAMSUNG   LG   DAEWOO   ETC
ASIA	_	SAMSUNG   LG   SHARP   HITACHI   TOSHIBA   MITSUBISHI   HAIER   ELECTROLUX
		PANASONIC   WHIRLPOOL   GODREJ   VIDEOCON   WALTON   DAWLANCE   PEL
EUROPE	_	SAMSUNG   LG   PROM-M   METALL PROFILE   WHIRLPOOL   ARCELIK   VESTEL
LATIN AMERICA	—	SAMSUNG   WHIRLPOOL   DAEWOO   ELECTROLUX   DANICA

### Installation abillity | Continuous Coating Line

#### **1CCL** | Refrigerator, Microwave oven, Washing machine, Fan heater, Air conditioner, Boiler



#### **2CCL** Interior and Exterior panel for building, Roof, Ceiling, Fire door, Office furniture, Partition



### Main products | PRINPIA

Prinpia expresses various patterns through unique printing method on the base coated steel sheet. And it finishes with the transparent clear coating for the beautiful surface, gloss and weatherability. It's the eco-friendly product compared to the PVC film laminated steel sheets.

#### Product Instroduction

We paint base colors Overlaid with print patterns using our specialized method (a selective final touch with transparent PET film for brighter surface can be added) to produce Prinpia, which is Fit for home appliance and building materials. Cold—reduced Carbon steel sheets and strip (CR), Electrolytic Zinc—coated Steel sheets and plates, strips and Coiled sheets (AL) can be applied as raw material depending on the usage of the products.

Various patterns and sophisticated appearance. Prinpia is produced by 3 coating 3 baking system on the base coated steel, which is used for building materials and high quality home appliances. The optional transparent PET file lamination is available for better gloss. So the customers can have wide range of choice. Its raw materials are CR, EGI, GI and AI.

### **Product Structure**

	LAYER	THICKNESS	TYPE	FUNCTION
0	Protective film	5 <i>µ</i> m	Low-Density Polyethylene	Prevention of scratch and contamination
0	Clear	10 <i>µ</i> m	Polyester	Protection printed layers and maintain the sense of surface touch
Protective film	Printing	Below 1µm	Polyester	Creative various pattern and 3 colors printing available
Clear Printing	Base	15µm	High-Durable Polyester	Excellent mechanical & chemical propertie beautiful appearance
Base S Primer	Primer	5 <i>µ</i> m	Polyester	Impracement of adherence toupper layer, workability and anti-corrosion Characterist
Chemical treatment Base Metal	Chemical treatment	Below 1µm	Chrome	Improvement of the corrosion resistance an adherence of base metals
0	Base Metal	<b>0.4</b> mm~1.2mm	GI, GA, GL	GI, GA, GL - Material with excellent corrosi resistance & weatherproof characteristic
9	Back	5 <i>µ</i> m	Ероху	Improve corrosion resistance of the back and excellent adherence with urethane

# Main products | PRINPIA

### **Description of PCM Sorted by Base Metal**

Base metal	Raw Materials	Application
Zn Hot-dip galvanized steel sheet	GL	Home appliances, Construction material
Electrolytic Galvanized Iron	EGI	Home appliances
GL	SuperGalum	Construction material
AL		Construction material, Tlle, Board, Panel
CR		White Board

### **Characteristics of Raw Materials**

#### NOTE $\odot$ EXCELLENT $\bigcirc$ GOOD $\triangle$ NORMAL

		Characteristicstion			
	Coating Layer Zinc Coating Weight	Anti- Corrosion			Application
CR		×	۲	۲	Home Appliaces, Steel Furniture, Auto mobile Parts
GI	Zn 60~300g/m²	۲	0	۲	Building Materials, Steel Furniture & Office Equipment, Auto mobile Parts
EGI	Zn 5~40g/m²	$\bigtriangleup$	0	۲	Home Appliances (Laundry machine & Refrigerator Door), Auto mobile Parts
AL,S	STS	۲	۲	0	Building Marerials

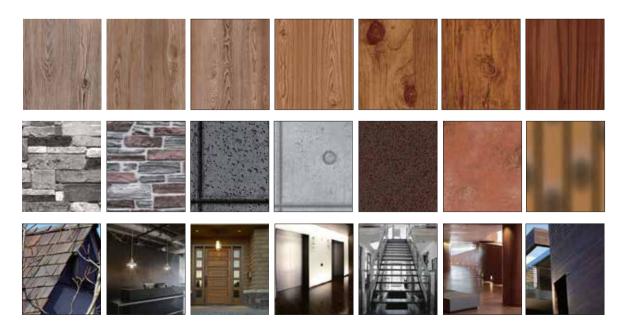
# Main products | PRINPIA

Product Application | N Door of refrigerator, Kim-Chi refrigerator, Washing machine, Microwave oven Homeappliance



#### Product Application | Construction Field

N Building in/exterior, Roofing, Ceiling, Fire door, Partition, Office furniture



# Main products | ILLUSIA

### Cost reduction compared to aluminum

Illusia is DK Dongshin's unique brand with new production method, which realizes the metal's natural smooth color and texture. Its base metal is Zn-Ni plated steel with polishing process same as stainless steel.

### Product Instroduction

<sup>(</sup>Zn-Ni plated steel + High Quality Polishing + Special Paint Coating<sup>(</sup>) Customized PCM with various functional coatings

· ECO-FRIENDLY	Eco friendly appliances and	· REAL SUS	Real Steel Hairline with stainless texture
	construction materials without PVC		
· LOW PRICE	Cost reduction compared to the	· HIGH QUARLIT	<b>Y</b>   Using special Zn–Ni plated steel,
	stainless steel		excellent gloss and corrosion resistance.

### Structure of Cross-section

Base metal Polishing				Coating			
Special Zn-Ni plated	Remai	ning proper p	lating layer	r Special polyester			
Uniform and firm platin	g Unifor	Uniform surface roughness		Hardening special melamine resin			
	Minim	um debris		Excellent corr adhesiveness	o o lo li lo o lo tal		
				Beautiful app chemical resis		excellent	
	F	ΡE	н	DPE	P\	/DF	
GUARANTEE	F	PE IN	H OUT	<b>DPE</b> IN	P\ OUT	<b>/DF</b> IN	
	OUT	IN	OUT 15YEARS	IN	OUT	IN	

### Product Application

Door of refrigerator, Kim-Chi refrigerator, Washing Machine, Outer case of high quality home appliances



## Main products | TOPRITE

# Mono color pre-painted steel with great workability for home appliances.

#### Product Instroduction

TOPRITE is the mono color pre-painted steel for home appliances, of which surface is painted with high workability and hardness. The raw materials are mainly applied to cold rolled iron (CR) and electro galvanized iron (EGI).

#### Great Workability, Cost Reduction

TOPRITE has high workability so that makes the post-treatment (Bending, Deep drawing, Drilling) easy and possible to automate the assembly line. 2coatings and 2bakings method contribute to cost-down, and clear coating after base coating makes the beautiful surface.

#### Product Application

Refrigerator, Microwave oven, Washing machine, Fan heater, Air conditioner.





### Main products | COLOR SHEET

Mono color steel sheet with excellent durability for construction.

#### Product Instroduction

COLOR SHEET is the mono color steel sheet for construction interior/exterior materials, which has high durability (Fluorine, Polyester paint). Raw materials are applied to cold rolled iron (CR), electro galvanized iron (EGI), hot-dip galvanized iron (GI) and aluminum or aluminum compounds.

#### Elegant colors , Economical efficiency

With the elegant colors of COLOR SHEET gives you visual stability and can be applied any construction Materials. And COLOR SHEET can reduce the painting work cost and the labor cost. And its great corrosion resistance, weatherability and chemical resistance provides the long durability than any.

#### Product Application

Construction exterior : Roof, Outer wall (Factory, Store, Public facility and House) Construction interior : Inner wall, Ceiling, Partition and Fire door)



# Main products | SUSLITE

Suslite is the real metal (AI) foil laminated steel sheet, which perfectly expresses the feelings of real stainless and metal. It has excellent workability which completes this brand new product with superb physical property and beautiful surface.

### Product Instroduction

#### Real Metal Foil Laminated Steel

Suslite is laminated with aluminum foil with the same hairline as stainless, which perfectly expresses the feeling of stainless and also it can express the various colors and glosses. Its raw materials are CR, EGI, GI and AI.

- Various designs with real SUS feeling and rich expressions.
- Realization of various glosses and rich texture, suitable for home appliances.
- · Excellent workability and properties without directivity.

### Product Application

Refrigerator door, Kimchi refrigerator, Washing machine, Outer case of high quality home appliances



### Structure of Cross-section



	LAYER	THICKNESS	TYPE & FUNCTION
0	Protective film	50~60 <i>µ</i> m	The protective film prevents scratches and contamination (option)
2	SUSLITE film	60 <i>µ</i> m	Choice among glossy, half glossy PET, printed PET
3	Adhesive	5 <i>µ</i> m	This enhances an adhesive power between Film and Material and corrosion resistance
4	Chemical treatment	±200/m²	Cr-Free & Give an adhesive power and a corrosion resistance
5	Base Metal	0.4~1.2mm	Choice among CR, EGI, GI, AL

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