

PVC Casting artificial leather



Company Introduction

Company outline

I&S, which is trustworthy company, creates customer value through innovations in technology and pursues healthy life and happiness.



Company Name : I&S Co., Ltd.

The date of establishment : May 19, 2003

CEO : Taehwan, CHA

Major Product : PVC artificial Leather for furniture upholstery
PVC Mat & Foam sheet

Location : 172, Hojuk hwasanro, Oksan-myeon, Heungdeok-gu,
Cheongju-si, Chung buk, 28101, KOREA

Employees : 150 (November, 2016)

Quality Management system

I&S Co., Ltd. concentrates on our technological and quality competitiveness based on **ISO9001** quality certification and concentrates on our corporate capability to develop the global best products for leading the world market with high value added of existing products.

Environmental Management System

Since adopting **ISO14001** Environment management system, I&S is accelerating ourselves on building eco-friendly corporate culture and eco-friendly product development to introduce the world-best ecofriendly products, and we are keeping production considering environment in all processes from material to product and use to disposal.



Facility Introduction

Major facilities

Raw material discover_4



Capa : 6,000ton/year

Casting foaming machine



Capa : 6,000,000m/year

Gravure printing machine



Capa : 8,000,000m/year

Emboss equipment_3



Capa : 6,000,000m/year

Eco friendly facility



Capa : 5,000,000m/year

Inspection and shipping



Capa : 6,000,000m/year



Facility Introduction

Major facility status

Air pollution prevention facilities

RTO_1 facility



500m³/min

RC+RTO_1 facility



700 / 100m³/min

Bag Filter_3 facilities



23.6m³/min

Bag Filter_1 facility



45m³/min

ACF_ each 1 facility



120 / 400m³/min

RFP_1 facility



500m³ /min



Facility Introduction

Other facilities

Heat flow boiler_1



200thousand Kcal/h

Steam boiler_3



800 Kg/h

Air compressor_2



75/100 HP

Cooling tower_2



200 RT

Miller_2



15 HP

High speed mixer_3



15/7.5 HP

Defoamer_2



1 ton

Welding machine_1



70 KW



Product Introduction

Manufactured products **PVC leather**



For sofa upholstery
For baby sofa
Certified flame
retardant leather
Certified green mark
leather



For brand bag
For Accessories
For shoes & clothes



For auto recovering
For marine



For furniture interior
For marine interior
For wall covering



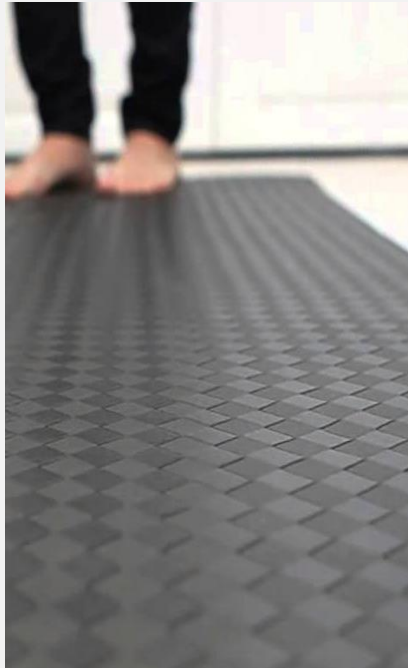
Product Introduction

Manufactured products

PVC Mat / PVC Foam



Play mat for kids
Mat for export



For noise prevention
For kitchen
For electronic factory



For sports
For yoga
For outdoor activity



High foaming foam
ESD conductive pad
Foam sheet for IMG



Product Introduction











Intellectual property capability Patent registration status

Registration date	The name of intellectual property	Registration, application number
May 13, 2013	Manufacturing method of flame-retardant laminated sheet	10 - 1265500
August 13, 2012	PVC conductive mat and manufacturing method	10 - 1175100
June 8, 2010	Acrylic foam artificial leather and manufacturing method	10 - 0963835
February 2, 2011	Manufacturing method for eco-friendly PVC foam sheet	10 - 0884270
December 5, 2008	Manufacturing method for flame retardant PVC foaming artificial leather	10 - 0873655
September 6, 2007	Manufacturing method of PVC mat for floor noise prevention	10 - 0758336
October 23, 2006	Manufacturing method of water pipe liner	40 - 0051629



Product Introduction

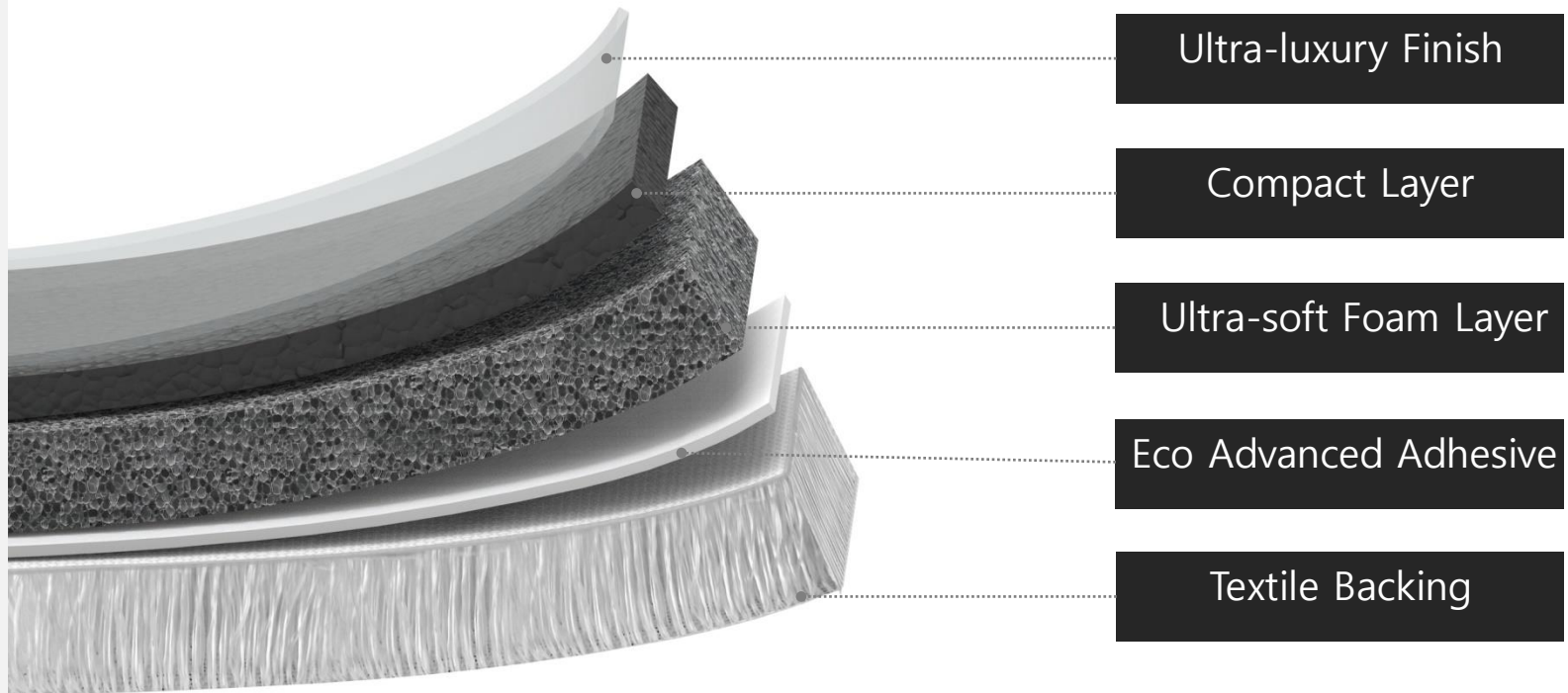
Quality and technical capability Certification Status

International Standard	DNV	Flame retardant	Green mark	KC
				
ISO 9001:2008 ISO 14001:2004	Marine interior MED certification	Flame retardant product approval	Ornamental artificial leather standard	Special Act on child products safety Reduction of harmful substances in mats
JUN 2006	FEB 2015	JUN 2015	AUG 2015	AUG 2015
CE	CPSIA	3C	GOST-R	SONCAP
				
EU Standard	US Consumer Product Safety	Chinese compulsory certification system	Russian Federation product standard	Nigeria National Quality
MAR 2011	SEP 2014	APR 2015	FEB 2012	JAN 2016



Product Introduction

Product structure **leather structure**





Product Introduction

Features

1



High quality

It provides superior quality and delicate embroidery than natural leather through the combination of casting method and vacuum embossing.

2



Softness

It is differentiated from other materials by adding surface touch sensibility and soft cushion to maximized emotional quality.

3



Weight reduction

It accords with trend for thickness of fine cell structure and weight reduction through accumulated foaming system.

4



Processability

Comparing to the other material, it has far superior excellent elasticity and restorative properties, so that it has advantage such as sewing ability, good matching, connection, and wrinkle occurrence.



Product Introduction

Features

The reason why it is more and more safe and best eco-friendly artificial leather is that company specialized in manufacturing infant / children's product.

5



Eco-friendly

Based on our know-how in product to consider safe and eco-friendly, it can provide a safe and reliable environment for the car interior space for all ages.

Heavy metal FREE

Best aqueous surface treatment

Satisfies product quality for domestic & global children standards

Excellent odor improvement effect

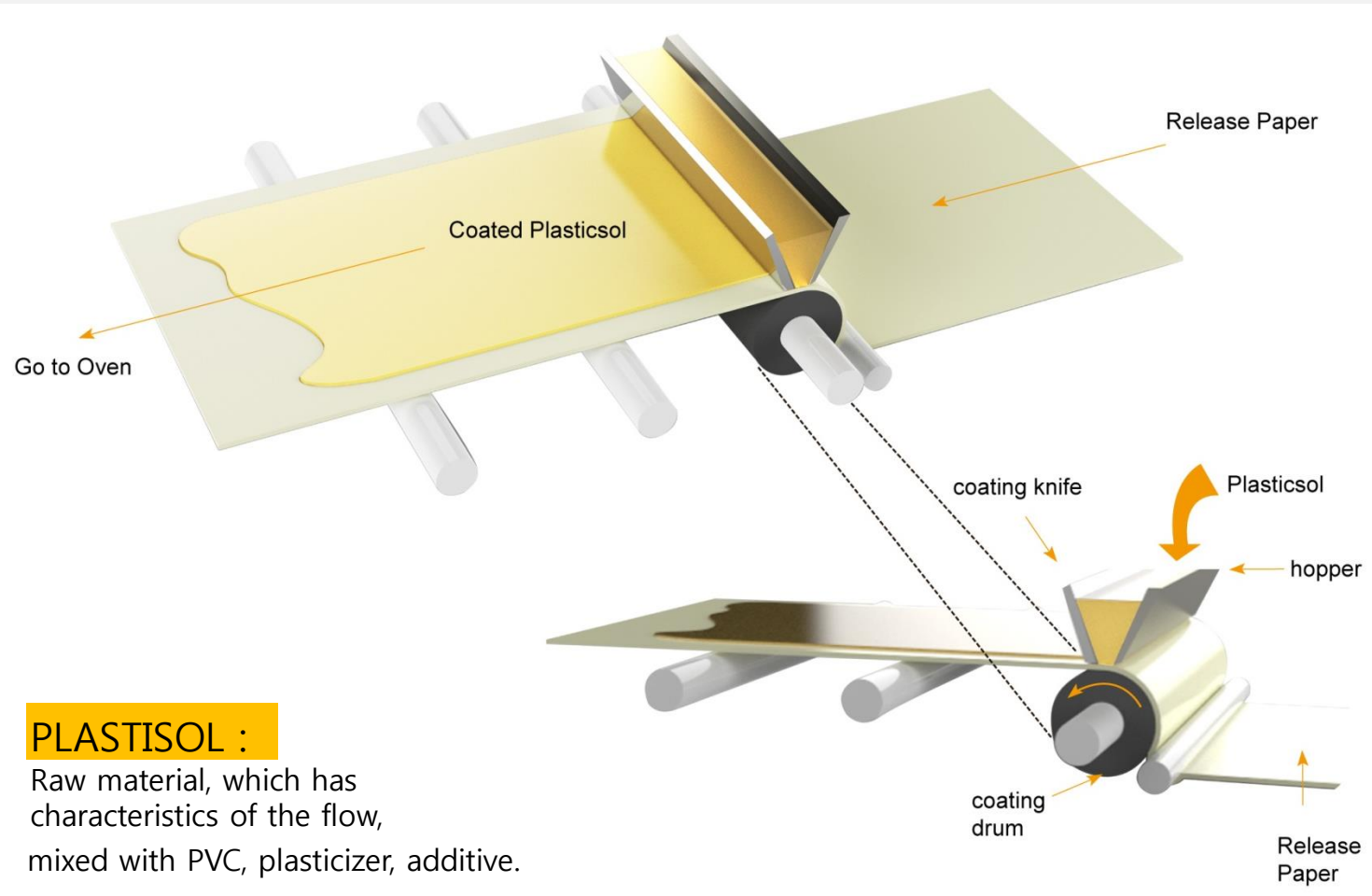
VOCs reduction products



Product Introduction

Casting method

This method is that plastisol is coated on release paper and then processed by gelling and foaming.

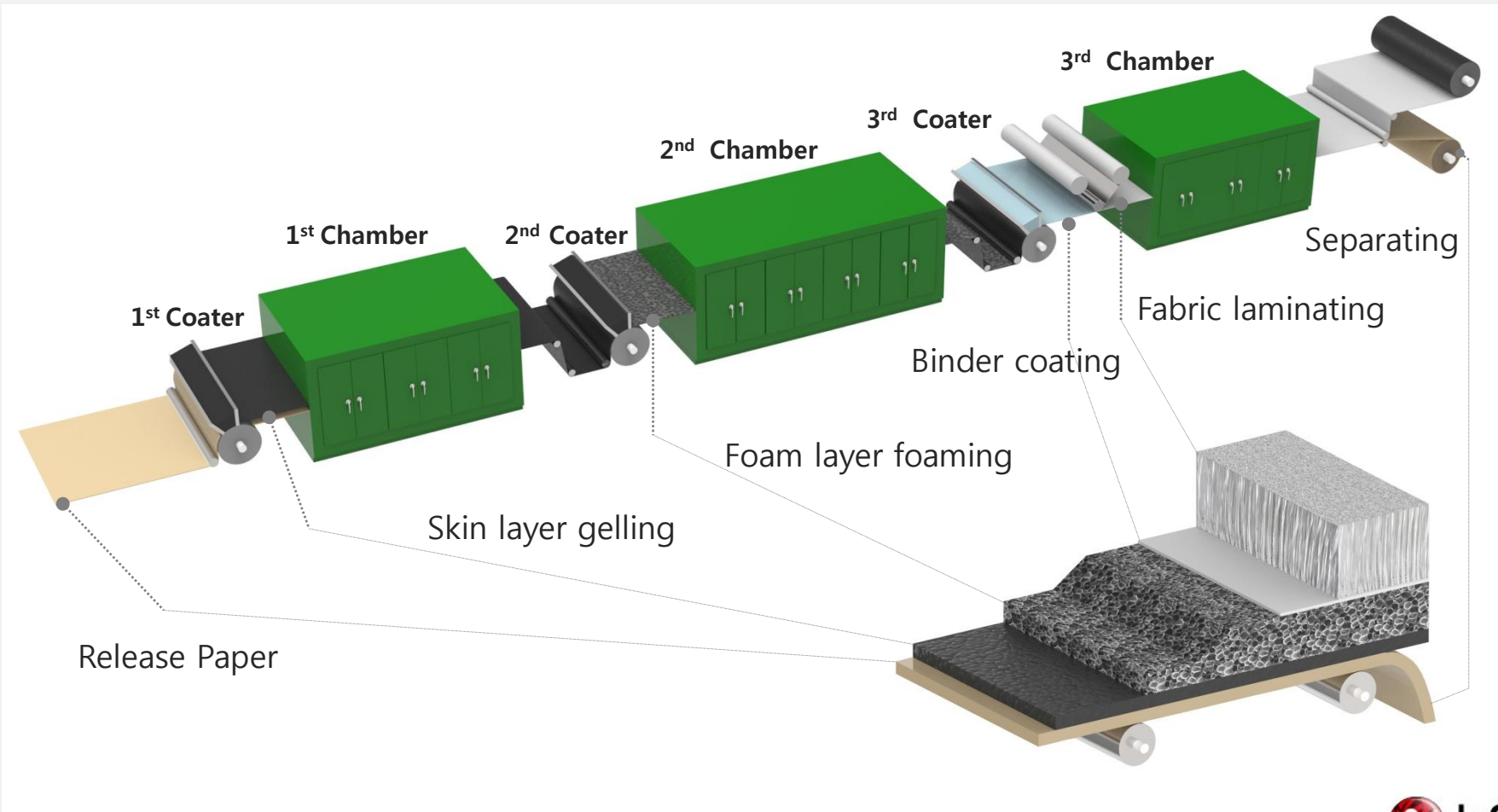




Product Introduction

■ Casting foaming process

It is composed of total 3rd Coater and manufactured semi-finished product through lamination process that repeated coating, drying (foaming) and cooling.





Product Introduction

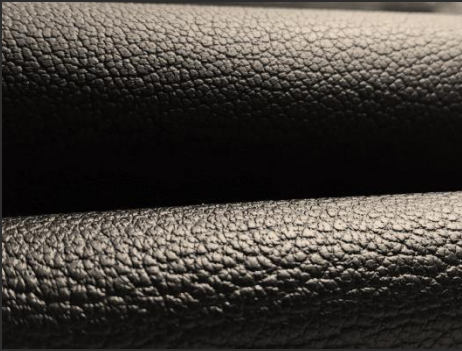
■ Own emboss manufacturing technology **Matrix Design**

We have accumulated emboss manufacturing technology, so that we can produce emboss roll to demand customers and market's needs.





■ Emboss pattern controlling technology



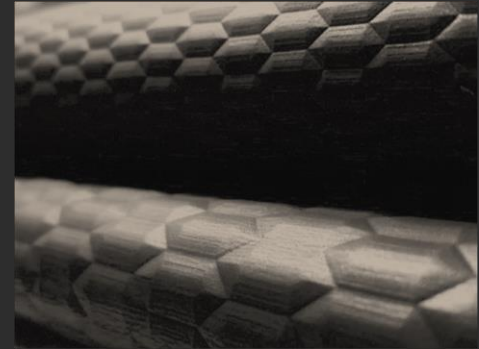
Emboss depth adjustment technology

Technology what can adjust the valley side to the desired depth while maintaining all shapes of the top of the embossed pattern intact.



3D pattern magnification technology

Technology what can enlarge the volume while maintaining all shapes of the pattern to be enlarged.



3D downsizing technology

Technology what reduces volume while maintaining all shape of pattern.



Comparison with calendering method

CALENDERING		CASTING
Hardness	Physical property	Softness
Straight PVC	Resin	Paste PVC
Rolling	Work method	Gelling
Fast	Operation pace	Slow
Inexpensive	Processing cost	Expensive
Normal	Commercialization	High Quality



Product Introduction

Comparison with calendering method **Cross section**

CALENDERING



Cross
section

CASTING



Physical strength, cost

Strength

Softness, Light weight

Weight, Hardness

Weakness

Cost, Production speed

Diffusion market

Demand

Royal market



Product Introduction











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Product Introduction



SOFFKIN-HYACINTH - 1.2mm × 1,372mm

Widely usable product, conductive product can be applied for anti-static workplaces dealing with semi-conductor, electric for furniture.

- Composition: PVC 81%; Polyester fabric 19%
- Function: eco-friendly, fire-retardant, anti-bacterial, abrasion resistance, excellent in color-fastness, waterproof.

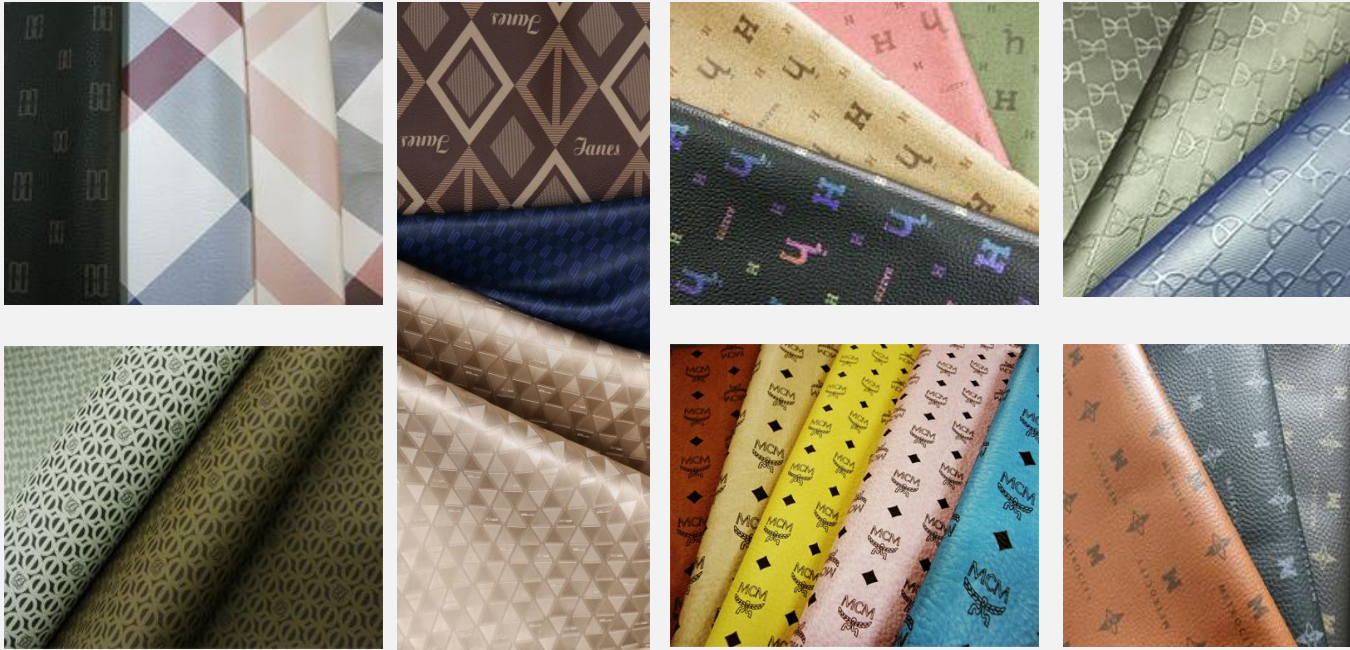
SOFFKIN-ADONIS - 1.5mm × 1,372mm

Suitable alternative for natural leather, higher grade for furniture.

- Composition: PVC 80%; Polyester fabric 20%
- Function: eco-friendly, fire-retardant, anti-bacterial, excellent in Color fastness, waterproof.
- It, which is soft touch and good durability similar to genuine leather, can embody a various emboss and colors for sofa, chair, bed, and all of furniture.



Product Introduction



SOFFKIN IANES leather - 1.1mm × 1,372mm

Premium bag leather through various techniques such as expression of natural leather, surface touch of full-grain leather treatment.

- Applied leather such as various pearl printing and transfer printing process.
- Function: soft surface touch, excellent in durability, anti-pollution
- Producing bag leather that internal and external luxury brands acknowledged (MCM, Daks, HAZZYS, LOUIS QUATOROZE, METROCITY, and ETC.)



Product Introduction



SOFFKIN-KALMIA - 1.2mm × 1,372mm

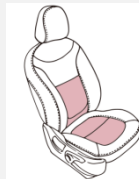
- It is multiple functional materials for interior luxury yacht and vessel
- Composition: PVC 82%; Polyester fabric 18%
- Thickness: 1.2 ± 0.1mm
- It is, obtained MED certificate from Norway's *Det Norske Veritas* (DNV), eco-friendly product.



Product Introduction



SOFFKIN – A part 1.2~1.4mm × 1,372mm



- Application : seat back, and cushion part
- Strength : robust durability, and embodied luxury emboss, and punching pattern
- Able to produce in thickness, physical property and colors as customer required.
- There might be a slight weight reduction after punching process depending on pattern.



SOFFKIN – B, C part 1.0~1.2mm × 1,372mm



- Application : Cushion, side and back area.
- Strength : Superior sewing process ability and wrinkle prevention due to soft physical property.
- Able to produce in thickness, physical property and colors as customer required.



■ Established & operating color management system

Man



HUE TEST

Material



High quality pigment

Environment



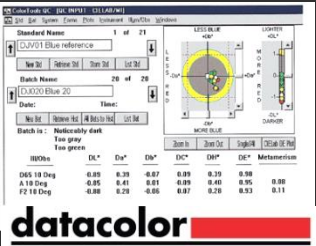
D65 lighting head harmony room

Environment



Lighting booth with 5 lights

Method



Tool Plus 2.0 system operation

Machine



3Roll Milling



Product Introduction

■ Established color quality management system

Introduce operation spectrophotometer of **datacolor** ,which is global leader
as Management & Communication

Measurement



The highest level of correspondence between equipment

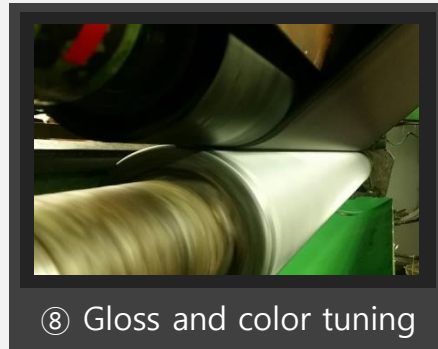
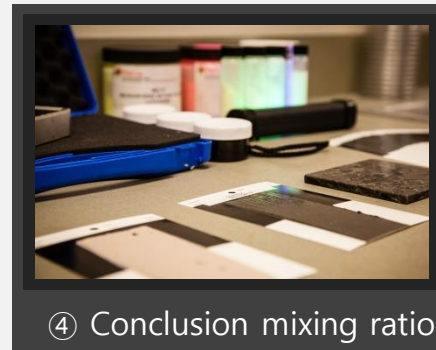
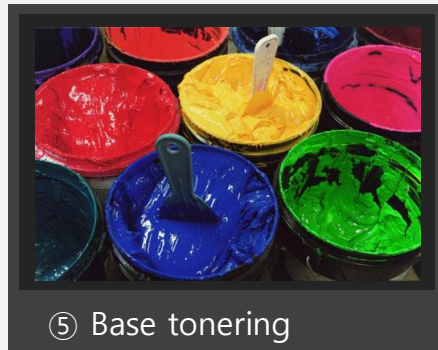
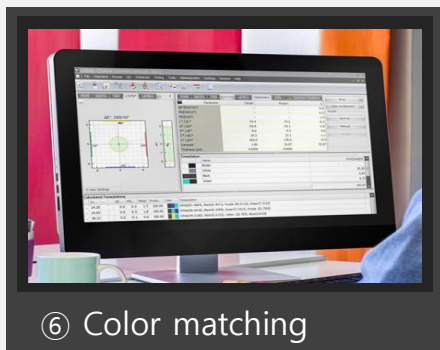
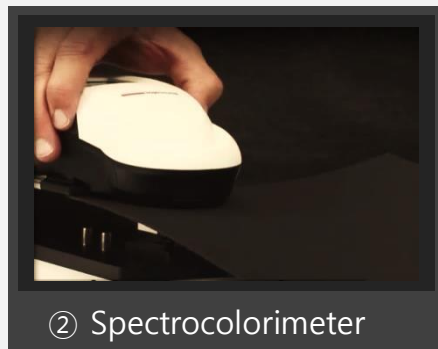
Excellent color reproducibility

Derive data for considering surface texture



Product Introduction

Color matching system





Product Introduction

■ Shipment and exportation

We have 3 DOCKs and supply export volume through stable export forwarding companies

Average number of container operations per month :

28 operations
(1Container/1day)





Product Introduction

Logistic warehouse



- I&S the 1st factory
- Retain 3 buildings
- Total area approx. 4,000m²

- China Qingdao warehouse
- Area approx. 1,000m²
- Approx. 300,000m storage
- Pallet approx. 500EA storage



- I&S the 2nd factory
- Total area approx. 4,000m²
- Completed extension in 2015





Thank you