



大興油墨化工（香港）有限公司
DAIHEI INK (H.K.) CO., LTD.



Company Introduction



Daihei Ink (Hong Kong) Co., LTD was founded in the early 1980s, headquartered in Hong Kong. Integrity management for more than 40 years.

Since 2001, in order to provide better service to our customers, Daihei Ink has set up branches in Shenzhen, Guangzhou, Dongguan, Shanghai and other places, to provide customers with better service. In 2006, Daihei Ink successfully established Dahei Ink (Fuzhou) Co., Ltd. Which can produce multiple varieties, series and production capacity of 10,000 tons.

Daihei ink has passed the ISO9001:2015 and ISO14001:2015 certification, our products has achieved attestation of Chinese environment mark green ten rings, and through the EN71-3, ROHS, REACH, US65, TPCH, ASTM test. Now we according to requirements of environmental protection necessary, we vigorously develop and promote environmental protection products.LED UV ink, waterless ink, SPL ink, Mineral oil free ink and other environmental protection products have been quite mature.

Daihei Ink always in mind the "energy saving and emission reduction, achieve environmental protection" . We use advanced production technology and environmental protection facilities. Not only in the product to achieve environmental protection, but also in scientific research, production, management, life energy saving and emission reduction, truly coexistence with the environment, and social win-win, to achieve the harmonious development of enterprises and society, environment.

*Colorful world,
Wonderful life!*

DAIICHI-AF NON-VOC PROCESS INK

Introduction

Organic volatiles (VOC) in ordinary inks are organic compounds that can react with sunlight and-nitrogen oxides in the ozone layer . The VOC volatilized into ozone combine with some substances to form gray fog , which has a negative impact on the health of animals , plants and other organisms .Based on the concept of environmental protection , DAIICHI-AF NON-VOC be used vegetable oil to replace mineral oil. It has ultra-low VOC volatilization during printing and drying,high content of film-forming substances in printing products,bright colors and environment friendly. It is a relatively environment friendly lithographic offset printing product in the world.

Features / Advantages

- ◆ Green environmental protection , pure Vegetable Oil , no mineral oil components
- ◆ Ultra-low VOC emissions , reduce environmental pollution
- ◆ Bright colors , high saturation, and excellent dot restoration
- ◆ Has high fountain solution matching, good stability on machine
- ◆ Suitable for coated paper, matt paper, cardboard and offset paper
- ◆ Product complies with ISO-2846-1 international color standard and ISO12647-2 international printing standard
- ◆ We Passed the ISO9001 and ISO14001 System Certification, American Soybean Association Agreement and Green Ten-ring Certification by CEC .
- ◆ The product according to ROHS , REACH (SVHC), EN71 and other test standards.

Ink's property

DAIICHI-AF NON-VOC	YELLOW	MAGENTA	CYAN	BLACK
DM	37-39	35-37	35-37	35-37
T.V	6.5-7.5	7.0-8.0	7.5-8.5	7.5-8.5
SET TIME(min)	8-12min	8-12min	8-12min	8-12min
GLOSS(60°)	70-80	60-70	60-70	70-80
DENSITY	1.20-1.30	1.85-1.95	1.90-2.00	2.10-2.20
PARTICLE SIZE	< 10um	< 10um	< 10um	< 10um
PAPER DRYING TIME	< 10Hr	< 10Hr	< 10Hr	< 10Hr
SKINNING	> 24Hr	> 24Hr	> 24Hr	> 24Hr
RUB RESISTANT STRONG→WEAK(5-1)	4	4	4	4



Test method

DM : measured by Spreadmeter(60sec/25°C)

Tackness : measured by Ink-O-meter(60sec/400rpm, 32°C)

Particle size : measured by Grinding gauge(μ m)

Gloss : measured by Glossmeter (60°)

Set time : measured by Setting tester(120g/m² ,INK 0.01cc)

Rub resistant : measured by Rub tester

Resistant level

DAIICHI-AF NON-VOC	YELLOW	MAGENTA	CYAN	BLACK
Acid	5(excel)-1(poor)	5	2	5
Alkaline	5(excel)-1(poor)	5	2	5
Water	5(excel)-1(poor)	5	4	5
Alcohol	5(excel)-1(poor)	4	4	5
Lightfastness	8(excel)-1(poor)	4	4	8



SONATRA NON-VOC PROCESS INK

Introduction

This product according to the environmental friendly requirements of the current market. Without mineral oil and has quality and more competitive price Made by modern precision manufacturing meet the requirements of environmental friendly standards to satisfied with European and American market. Has good quality, competitive price, bright color, high gloss and stability advantages.

Features / Advantages

- ◆ Economic pure vegetable oil ink
- ◆ Suitable for art coated paper, matt paper
- ◆ Environment friendly, no mineral oil components
- ◆ Already passed ROHS, REACH(SVHC), EN71, USA Soybean association certificate and Green-Ten ring certification testing standard

Ink's property

SONATRA NON-VOC	YELLOW	MAGENTA	CYAN	BLACK
DM	37-39	35-37	35-37	35-37
T.V	6.5-7.5	7.0-8.0	7.5-8.5	7.5-8.5
SETTIME(min)	10-12min	10-12min	10-12min	10-12min
GLOSS(60°)	70-80	60-70	60-70	70-80
DENSITY	1.10-1.20	1.75-1.85	1.80-1.90	2.00-2.10
PARTICLE SIZE	< 10um	< 10um	< 10um	< 10um
PAPER DRYING TIME	< 10Hr	< 10Hr	< 10Hr	< 10Hr
SKINNING	> 24Hr	> 24Hr	> 24Hr	> 24Hr
RUB RESISTANT STRONG→WEAK(5-1)	3	3	3	3



Test method

- DM : measured by Spreadmeter(60sec/25°C)
- Tackness : measured by Ink-O-meter(60sec/400rpm, 32°C)
- Particle size : measured by Grinding gauge(μm)
- Gloss : measured by Glossmeter (60°)
- Set time : measured by Setting tester(120g/m², INK 0.01cc)
- Rub resistant : measured by Rub tester

Resistant level

SONATRA NON-VOC	YELLOW	MAGENTA	CYAN	BLACK
Acid	5(excel)-1(poor)	5	2	5
Alkaline	5(excel)-1(poor)	5	2	5
Water	5(excel)-1(poor)	5	4	5
Alcohol	5(excel)-1(poor)	4	4	5
Lightfastness	8(excel)-1(poor)	4	4	8



DAIICHI-AF SOYBEAN OIL BASED PROCESS INK

Features/Advantages

This high-end ink is made for high glossiness as target. It enhances the surface glossiness, reduce dot gain and change in drying, increase adaptability in post-production. It is suitable for printing matt coated paper of high gloss high-end magazine, publicity catalog.

It has brilliant color, high color density and excellent dot reproduction and printability and stability. It also has good printability for post-production, fast drying, avoid picking up dirt, scratch, and set-off troubles. Suitable for matt coated high grade paper of high class printing matters by high speed machine, such as publicity catalog, commercial printing, export packaging, and magazines etc.

PAPER Suitable for art coated paper

This product has excellent printability. It enhances rub resistance, glossiness and good dot reproduction, realizing the unprecedented evenly coating on paper surface. Through high glossiness and good dot reproduction, it contributes to the tuning screen printing in high quality printing. The good post production printability strongly protect the surface of printed matters. It shortens about 30% of setting and drying time.

The penetrating material can smoothly penetrate from the ink skin to the paper, thus forming ink skin rapidly, shortening the time waiting for drying and reversing. Through the newly developed linking material, it greatly widen the tolerance of ink to fountain solution and achieve increase productivity.

Ink's property

DAIICHI-AF	YELLOW	MAGENTA	CYAN	BLACK
DM	37-39	35-37	35-37	35-37
T.V	6.5-7.5	7.0-8.0	7.5-8.5	7.5-8.5
SET TIME(min)	8-10min	8-10min	8-10min	8-10min
GLOSS(60°)	70-80	60-70	60-70	70-80
DENSITY	1.20-1.30	1.85-1.95	1.90-2.00	2.10-2.20
PARTICLE SIZE	< 10um	< 10um	< 10um	< 10um
PAPER DRYING TIME	< 10Hr	< 10Hr	< 10Hr	< 10Hr
SKINNING	> 24Hr	> 24Hr	> 24Hr	> 24Hr
RUB RESISTANT STRONG→WEAK(5-1)	4	4	4	4

Test method

Viscosity(DM): measured by Spreadmeter(60sec/25°C)

Tackness Value (T.V) : measured by Ink-O-meter(60sec/400rpm, 32°C)

Particle size : measured by Grinding gauge(μ m)

Gloss Value : measured by Glossmeter (60°)

Set time : measured by Setting tester(120g/m², INK 0.01cc)

Rub resistant : measured by Rub tester

Resistant level

DAIICHI-AF	YELLOW	MAGENTA	CYAN	BLACK
Acid	5(excel)-1(poor)	5	2	5
Alkaline	5(excel)-1(poor)	5	2	5
Water	5(excel)-1(poor)	5	4	5
Alcohol	5(excel)-1(poor)	4	4	5
Lightfastness	8(excel)-1(poor)	4	4	8

OUR COMPANY CAN SUPPLY PROCESS INK ACCORDING TO THE STANDARD OF ISO-2846、GMI OF COLOR MANAGEMENT



KONIER-S800 SOYBEAN OIL BASED PROCESS INK

Features/Advantages

- ★ Fast setting and drying time
- ★ Good water balance
- ★ Good transfer on press

PAPER Suitable for art coated paper

Based on the need of environmental protection of the market nowadays, this product is made with mainly vegetable oil. It is a quality but low price new product being developed and manufactured with modernized and sophisticated technology. It complies with the environmental protection standards of European and American countries. This product has fine ink quality, brilliant color, high color density, good gloss, sharp dot, detailed structure, with good resistance to rub and heat. It has the advantages of not skin on the press but fast dry on paper. It has stabilized emulsification and printability. It is easily operated and be applied on the press directly without the need to add any auxiliary material.

The product is suitable for use of such base material as art paper, white board paper. It is specially good for coated paper to print various high-end magazine, advertisement, label and high class decorative material.

Ink's property

KONIER	YELLOW	MAGENTA	CYAN	BLACK
DM	37-39	35-37	35-37	35-37
T.V	6.5-7.5	7.0-8.0	7.0-8.0	7.0-8.0
SET TIME(min)	8-10min	8-10min	8-10min	8-10min
GLOSS(60°)	65-75	55-65	55-65	65-75
DENSITY	1.10-1.20	1.75-1.85	1.80-1.90	2.00-2.10
PARTICLE SIZE	< 10um	< 10um	< 10um	< 10um
PAPER DRYING TIME	<10Hr	< 10Hr	< 10Hr	< 10Hr
SKINNING	>24Hr	> 24Hr	> 24Hr	> 24Hr
RUB RESISTANT STRONG→WEAK(5-1)	3	3	3	3

Test method

Viscosity(DM) : measured by Spreadmeter(60sec/25°C)

Tackness Value (T.V) : measured by Ink-O-meter(60sec/400rpm, 32°C)

Particle size : measured by Grinding gauge(μ m)

Gloss Value : measured by Glossmeter (60°)

Set time : measured by Setting tester(120g/m² ,INK 0.01cc)

Rub resistant : measured by Rub tester

Resistant level

KONIER	YELLOW	MAGENTA	CYAN	BLACK
Acid	5(excel)-1(poor)	5	2	5
Alkaline	5(excel)-1(poor)	5	2	5
Water	5(excel)-1(poor)	5	4	5
Alcohol	5(excel)-1(poor)	4	4	5
Lightfastness	8(excel)-1(poor)	4	4	8



COLORMAX SOYBEAN OIL BASED PROCESS INK

Features/Advantages

- ★ Fast setting and drying time
- ★ Good water balance
- ★ Good transfer on press

PAPER Suitable for general coated paper

This product is made according to the need of printing market. It is a quality but low price new product. It complies with the environmental protection requirements of European and American countries. It has good resistance to rub and heat. It has the advantages of not skin on the press but fast dry on paper. It is suitable for high speed printing of today.

This product is suitable for various paper quality such as art paper, white board paper, recycled paper, for printing of packaging and high class decorative items.

Ink's property

COLORMAX	YELLOW	MAGENTA	CYAN	BLACK
DM	37-39	35-37	35-37	35-37
T.V	6.5-7.5	7.0-8.0	7.0-8.0	7.0-8.0
SET TIME(min)	8-10min	8-10min	8-10min	8-10min
GLOSS(60°)	60-70	50-60	50-60	60-70
DENSITY	1.00-1.10	1.70-1.80	1.70-1.80	1.95-2.05
PARTICLE SIZE	< 10um	< 10um	< 10um	< 10um
PAPER DRYING TIME	< 10Hr	< 10Hr	< 10Hr	< 10Hr
SKINNING	> 24Hr	> 24Hr	> 24Hr	> 24Hr
RUB RESISTANT STRONG→WEAK(5-1)	3	3	3	3



Test method

Viscosity(DM) : measured by Spreadmeter(60sec/25°C)

Tackness Value (T.V) : measured by Ink-O-meter(60sec/400rpm, 32°C)

Particle size : measured by Grinding gauge(μ m)

Gloss Value : measured by Glossmeter (60°)

Set time : measured by Setting tester(120g/m² ,INK 0.01cc)

Rub resistant : measured by Rub tester

Resistant level

COLORMAX	YELLOW	MAGENTA	CYAN	BLACK
Acid	5(excel)-1(poor)	5	2	5
Alkaline	5(excel)-1(poor)	5	2	5
Water	5(excel)-1(poor)	5	4	5
Alcohol	5(excel)-1(poor)	4	4	5
Lightfastness	8(excel)-1(poor)	4	4	8



SONATRA SOYBEAN OIL BASED PROCESS INK

Application

- ★ Offset sheet-fed printing

Features/Advantages

- ★ Reliable quality of offset sheet-fed printing ink designed for wide range of paper
- ★ Good printing performance
- ★ Suitable for medium high speed printing
- ★ Fast drying and quick setting time
- ★ Easy control of water balance

Main printing substrate

- ★ Coated(art) paper
- ★ Uncoated paper, recycled paper

Ink's property

SONATRA	YELLOW	MAGENTA	CYAN	BLACK
DM	37-39	35-37	35-37	35-37
T.V	6.5-7.5	7.0-8.0	7.5-8.5	7.5-8.5
SET TIME(min)	8-10min	8-10min	8-10min	8-10min
GLOSS(60°)	60-70	60-70	55-65	65-75
DENSITY	1.15-1.25	1.85-1.95	1.85-1.90	2.05-2.15
PARTICLE SIZE	<10um	<10um	<10um	<10um
CURING LAMP	<10Hr	<10Hr	<10Hr	<10Hr
CURING ENERGY	>24Hr	>24Hr	>24Hr	>24Hr
RUB RESISTANT STRONG→WEAK(5-1)	3	3	3	3

Test method

Viscosity(DM): measured by Spreadmeter(60sec/25°C)

Tackness Value (T.V) : measured by Ink-O-meter(60sec/400rpm, 32°C)

Particle size : measured by Grinding gauge(μm)

Gloss Value : measured by Glossmeter (60°)

Set time : measured by Setting tester(120g/m² ,INK 0.01cc)

Rub resistant : measured by Rub tester

Resistant level

SONATRA	YELLOW	MAGENTA	CYAN	BLACK
Acid	5(excel)-1(poor)	5	2	5
Alkaline	5(excel)-1(poor)	5	2	5
Water	5(excel)-1(poor)	5	4	5
Alcohol	5(excel)-1(poor)	4	4	5
Lightfastness	8(excel)-1(poor)	4	4	8



DICOMAX-UP SOYBEAN OIL BASED PROCESS INK

Application

- ★ Offset sheet-fed printing

Features/Advantages

- ★ Reliable quality of offset sheet-fed printing ink designed for wide range of paper
- ★ Good printing performance
- ★ Suitable for medium high speed printing
- ★ Fast drying and quick setting time
- ★ Easy control of water balance

Main printing substrate

- ★ Coated(art) paper
- ★ Uncoated paper, recycled paper

Ink's property

DICOMAX UP	YELLOW	MAGENTA	CYAN	BLACK
DM	37-39	35-37	35-37	35-37
T.V	6.5-7.5	7.0-8.0	7.5-8.5	7.5-8.5
SET TIME(min)	8-10min	8-10min	8-10min	8-10min
GLOSS(60°)	70-80	60-70	60-70	70-80
DENSITY	1.20-1.30	1.85-1.95	1.90-2.00	2.00-2.10
PARTICLE SIZE	< 10um	< 10um	< 10um	< 10um
CURING LAMP	< 10Hr	< 10Hr	< 10Hr	< 10Hr
CURING ENERGY	> 24Hr	> 24Hr	> 24Hr	> 24Hr
RUB RESISTANT STRONG→WEAK(5-1)	4	4	4	4



Test method

- Viscosity(DM) : measured by Spreadmeter(60sec/25°C)
- Tackness Value (T.V) : measured by Ink-O-meter(60sec/400rpm,32°C)
- Particle size : measured by Grinding gauge(μm)
- Gloss Value : measured by Glossmeter (60°)
- Set time : measured by Setting tester(120g/m² ,INK 0.01cc)
- Rub resistant : measured by Rub tester

Resistant level

DICOMAX UP	YELLOW	MAGENTA	CYAN	BLACK	
Acid	5(excel)-1(poor)	5	2	5	5
Alkaline	5(excel)-1(poor)	5	2	5	5
Water	5(excel)-1(poor)	5	4	5	5
Alcohol	5(excel)-1(poor)	4	4	5	5
Lightfastness	5(excel)-1(poor)	4	4	8	8



HEAT SET OFFSET PRINTING INK

This product is a heat-set web offset ink that need be dried under heating condition. Overseas technology in all aspects is introduced and is elaborately manufactured with modernized craft and with top grade raw materials. Thus the quality has reached international standard. It is suitable for paper in offset printing and other non-coated paper as base substrate. It is an ideal ink for printing of such things as periodical, magazine, book and high-end pictorial.

Product Characteristic

- ★ This is low mould and low PAH. It complies with EU's RoHS environment protection standard and requirement.
- ★ It has extremely fast setting time suitable for high speed printing requirement (60,000 rpm).
- ★ New raw materials is used that can avoid slurring to a great extent.
- ★ Brilliant color, high color density and sharp printing dot.
- ★ Excellent adaptability and good transferability on press.

Application Method

- ★ It can be applied on press directly without the need of adding any auxiliary material.
- ★ It can be mixed together with other colors of its same kind to match different colors. But it must not be mixed with ink of different kind to avoid the influence on its printability and drying property.

Characteristic value of Ink

HEAT SET WEB INK	YELLOW	MAGENTA	CYAN	BLACK
TV	3.9	4.0	4.1	3.9
DM	41	41	41	41

- ★ TV: measured by Ink-O-Meter 60sec/400rpm at 32°C.
- ★ DM: measured by Spreadmeter 60sec. at 25°C.



COLD SET OFFSET PRINTING INK

Introduction

This product is a cold-set web offset ink that need be dried under cold condition. Overseas technology in all aspects is introduced and is elaborately manufactured with modernized craft and with top grade raw materials, Thus the quality has reached international standard.

Application

It is suitable for paper in offset printing and other non-coated paper as base substrate. It is an ideal ink for printing of such things as periodical, magazine, book and high-end pictorial.

Ink's property

COLD SET	YELLOW	MAGENTA	CYAN	BLACK
DM	38-40	38-40	38-40	37-39
T.V	3.5-4.5	3.5-4.5	3.5-4.5	3.5-4.5
SETTIME(min)	4-8min	4-8min	4-8min	4-8min
GLOSS(60°)	50-60	50-60	50-60	50-60
DENSITY	1.00-1.10	1.60-1.70	1.60-1.70	1.90-2.00
PARTICLE SIZE	< 10um	< 10um	< 10um	< 10um
PAPER DRYING TIME	< 10Hr	< 10Hr	< 10Hr	< 10Hr
SKINNING	> 48Hr	> 48Hr	> 48Hr	> 48Hr
RUB RESISTANT STRONG→WEAK(5-1)	2	2	2	2



Test method

- Viscosity(DM): measured by Spreadmeter(60sec/25°C)
- Tackness Value (T.V) : measured by Ink-O-meter(60sec/400rpm, 32°C)
- Particle size : measured by Grinding gauge(μ m)
- Gloss Value : measured by Glossmeter (60°)
- Set time : measured by Setting tester(120g/m², INK 0.01cc)

Resistant level

COLD SET	YELLOW	MAGENTA	CYAN	BLACK
Acid 5(excel)-1(poor)	5	2	5	5
Alkaline 5(excel)-1(poor)	5	2	5	5
Water 5(excel)-1(poor)	5	4	5	5
Alcohol 5(excel)-1(poor)	4	4	5	5
Lightfastness 8(excel)-1(poor)	4	4	8	8

PANTONE COLOR INK

SNT-PT PANTONE

Classification		Property and Use
PANTONE	WHITE	<ul style="list-style-type: none"> ● STABLE COLOR ● FAST DRY, HIGH GLOSSY ● SUITABLE FOR PRINTING ON VARIOUS KINDS OF PAPER
PANTONE	MEDIUM	
PANTONE	OP VARNISH	
PANTONE	MATT VARNISH	
PANTONE	YELLOW	
PANTONE	YELLOW 012	
PANTONE	ORANGE 021	
PANTONE	BRONZE RED	
PANTONE	WARM RED	
PANTONE	RED 032	
PANTONE	RUBINE RED	
PANTONE	RHODAMINE RED	
PANTONE	PURPLE	
PANTONE	VIOLET	
PANTONE	BLUE 072	
PANTONE	REFLEX BLUE	
PANTONE	GREEN C	
PANTONE	SPECIAL BLACK	
PANTONE	SPECIAL WHITE	



Pantone Fluorescent Ink

Classification		Property and Use
PT 801	Fluorescent Blue	<ul style="list-style-type: none"> ● CLEAR AND BRIGHT TONE ● GOOD TRANSFERABILITY ● SPECIALLY SUITABLE FOR ROLLED PAPER
PT 802	Fluorescent Green	
PT 803	Fluorescent Yellow	
PT 804	Fluorescent Orange	
PT 805	Fluorescent Warm Red	
PT 806	Fluorescent Pink	
PT 807	Fluorescent Magenta	



Gold & Silver

Classification		Property and Use
PANTONE8924	Pale Gold	High gloss, rich and bright colors Excellent printing adaptability, good machine stability
PANTONE8922	Rich Gold	
PANTONE8310	Silver 8310	



UV333 CURING OFFSET PRINTING INK

Daiichi-UV series of UV curing offset printing ink is elaborately manufactured with modernized craft and with newly developed special kind of raw materials.

Product Characteristic

- ★ Has excellent curing speed suitable for high speed printing.
- ★ Wide range of water / ink balance. Remarkable suitability to emulsification.
- ★ Good and even flow. Very good dot re-generation.
- ★ High gloss and good rub-resistance.
- ★ Brilliant color, detailed layer of tone.
- ★ Can be used for water offset printing and waterless offset printing.

Adaptation scope

It is suitable for all kinds of PVC card printing. And is widely used on gold and silver card, synthetic paper, PE, PET, PVC, PP etc. non-absorbing substrate and high class decorative item printing.



LED UV833 CURING OFFSET PRINTING INK

Introduction

This product is mainly composed of LED UV curable acrylic acid resin, photo-initiator, active diluent, pigment filler and various additives. It is an environment-friendly ink product with no solvent and volatile raw material ingredients, balanced by professional technical formula, with stable printing suitability, fast curing speed, bright ink color, high saturation, good adhesion, excellent aging resistance and other advantages.

Suitable for 385 and 395 wavelengths, LED UV Lamp power not less than 8kw.

Application

Applicable substrates include: aluminum plated gold and silver card paper, laser card paper, surface treated PVC, PET.



Special Ink

	Series	Features	Suitable print material
Special Ink	POP	For Non-absorbent substrates	Gold, silver foil, poly film and PVC plastic material
	SPL	No need add spray powder during use	Coated paper, matt paper, cardboard, etc.
	DRY RICH	No need add water and fountain solution during use	Coated paper, matt paper, cardboard, etc.



SOLUTION TO COMMON PROBLEM IN OFFSET PRINTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Caking	Short ink thread and lack of flow.	Add good quality of ink reducer to increase the flow.
	Ink has thixotropy feature, must stir to avoid become solid.	Stir often so that ink stays flowing.
Set-off	Inadequate spray powder	Use more spray powder and use larger particle of spray powder.
	Paper stack too high at paper receiving end	Avoid paper stacking too high.
	Ink supply increased due to weak color density of ink.	Use ink with higher color density to avoid the need to increase ink supply.
Powderise of ink	Inadequate use of adhesive material in ink.	Use ink with weaker color density and with faster drying.
	Low tack value of ink.	Use ink with higher tack value.
	Bad absorbing of paper.	Use ink with weaker color density and with faster drying.
	Slow drying of ink.	Add appropriate quantity of drying agent.
Dot spreading	Inappropriate pressure setting of rubber roller and printing cylinder.	Reset the pressure of rubber roller and printing cylinder.
	Rubber roller and blanket too soft.	Adjust or replace rubber roller and blanket.
	Inappropriate setting of blanket mounting or too high pressure.	Check the blanket mounting and pressure.
	Piling.	Please refer to the guide in Piling.
	Fountain solution system too dirty.	Clean the fountain solution system.
	Not balance of PH value or conductivity of fountain solution.	Set the proper PH value or conductivity as suggested by maker.
Slow-drying	Ghosting appears in some half tone portion.	Check the cylinder pressure, blanket and the mechanical operation of printing machine.
	Inadequate content of drying agent in ink.	Add appropriate quantity of drying agent to ink.
	Overuse of anti-oxidiser in ink.	Add drying agent and use good property of linking material.
	Too strong alkaline property of paper.	Check the paper dryness before printing.
	Paper too wet.	Use hot air to dry paper or place paper in a dry place. Good ventilation is helpful to quicker dry of ink.
	Too acidity of fountain solution.	Modify the PH value of fountain solution to value above 4.
Ghosting (mechanical)	Loss of activity of drying agent in ink.	Add drying agent to ink.
	Not evenly apply of ink.	Ensure ink has adequate flow.
	Too much of pigment contain in ink (color too saturated).	Do not use ink with too saturated color when printing half tone image.
	Rubber roller improper setting or aging.	Check rubber roller setting and make adjustment when necessary.
	Ink too transparent.	Use ink with less transparency.
Ghosting (glossiness)	Inappropriate spreading of solid area.	Try to arrange the solid area evenly.
	Bad quality of paper and use ink with fast dry property. When oxidising, ink emits gas that is trapped in paper, speeding the drying on that part and so induce lack of gloss and weak shadow effect.	Change using other type of paper or apply o.p. varnish after printing. Blow air oftenly to the paper.
Crystallisation of ink roller	Fountain solution has high PH value of alkaline and conductivity.	Check PH value of fountain solution and adjust to the suggested value by maker. Use cleaner suggested by maker to clean rubber roller. Check with your fountain solution maker.
	Low content of alcohol.	Adjust the alcohol content of fountain solution. Suggest use alcohol content of 5-10%.
	Too strong color density of ink	Use ink with lower color density but increase ink supply quantity.
	Rubber roller and blanket too old or not suitable for use.	Please discuss with your suppliers of rubber roller and blanket.
Inadequate glossiness	Too low glossiness in printing.	Use paper with higher gloss or with smooth surface. Use high gloss ink. Increase ink layer thickness. Use less fountain solution.
	Glossiness of paper too low.	Cheic the grade of gloss of paper.
Mottling	Printing plate or blanket has dust on surface.	Check ink, fountain solution or paper and see if they are contaminated.
Bad rub-resistance	Obvious rub during paper transfer.	Check the paper transfer mechanic to rule out the cause of being rubbed.
	Ink powderised and not adhere to paper.	The pigment and linking material are not ratiolly matched for paper in printing.
	Coarse surface of paper.	Consider applying o.p. varnish after printing.

SOLUTION TO COMMON PROBLEM IN OFFSET PRINTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Piling	Ink emulsified, causing pigment to separate due to decrease in viscosity or tack value.	Reduce quantity of fountain solution. Check property of emulsification of ink
	Inappropriate hardness of rubber roller, inappropriate setting. Inadequate mounting of blanket or inappropriate setting.	Use suitable rubber roller and blanket. Check the operation setting of rubber roller, mounting of blanket etc. and conduct cleaning or adjustment when necessary.
	Abnormal PH value or conductivity of fountain solution.	Check the PH value and conductivity and adjust according to maker's suggestion.
	The surface temperature of ink transfer roller not correct.	Adjust temperature of ink roller to its suggested temperature and check the setting.
	Piling occur because ink has not completely transferred to paper. This is due to the improper pressure of mounting of blanket cylinder or impression cylinder.	Check the pressure or mounting of blanket and impression cylinder.
Crystallisation	Too much tack value of ink to paper.	Change to use ink with less tack value or add 1–2% of tack reducing agent.
	Inadequate property of anti-lint of paper.	Change to other paper. Discuss with your paper supplier. Install brush or dust remover.
	Printing pressure not correctly set.	Set printing pressure as per suggestion of machine maker.
	Water / ink not balance.	Adjust water / ink to a balance level.
	Too much tack value of blanket.	Clean the surface of blanket to reduce tackness. Use blanket with quick strip property. Check the cleaning agent of blanket. Solicit solution from blanket supplier.
	Inproper mounting of blanket.	Make correction to the mounting of blanket (too much mounting or inadequate mounting can cause crystallisation.).
	Too high viscosity of ink and so causing ink layer to become thin.	Change to ink with smaller tack value.
	Too low temperature.	Adjust temperature of printing room and fountain solution. Preheat printing machine before printing.
Misting	Over-supply of ink in order to increase color density of ink.	Change to ink with higher color density and print with thinner layer of ink.
	Ink roller damaged or improper setting.	Check if ink film has been damaged or not, and also check if the ink roller is set properly.
	Ink transfer roller has been affected by static electric.	Check if the printing machine is properly grounded.
	Water / ink not balance.	Adjust water / ink to a balance level.
	Printing machine too high temperature.	Check the cooling system of ink roller. Check fountain solution (alcohol, temperature).
	Ink sprinkle to underneath.	Adjust water and ink balance. Use solid color strip to absorb excessive ink.
Mottling	Too much water supply, excessive emulsification of ink.	Reduce water supply. Adjust water / ink balance.
	The former set of rolling cylinder has excessive water supply leading to paper transfer with excessive water.	Reduce water supply of former set of roller cylinder.
	Paper not strong or coating too weak.	Use suitable quantity of tack reducing agent to decrease tack of ink.
	Blanket rolling cylinder has too much pressure on paper.	Reduce printing pressure to machine supplier's specification.
	Blanket too hard.	Change to blanket with softer nature.
	Too high color density of ink leading to inadequate supply of ink being transferred to plate.	Add ink reducer to reduce color density of ink.
Scratch or rubbing on printing plate	Improper develop of printing plate.	Recheck the processing craft of plate developing.
	Dampening system being contaminated by surface active agent.	Make sure all working part of dampening system that is in contact with surface active agent are properly cleaned when install to printing machine. Strictly use and monitor the proper cleaning agent.
	Use unsuitable fountain solution or formulation.	Check PH value and conductivity value. Discuss with your fountain solution supplier.
	Plate is not cleaned after apply plate cleaner.	Do not apply excessive plate cleaner. It must be thoroughly cleaned after applying. All material, include water, sponge or cleaning towel that has been in contact with plate must be cleaned. Do not let plate cleaner drip dry on surface of plate.
	In the process of printing, fiber, coating or lint continually generated onto blanket and make printing plate damaged.	Check PH value and conductivity of fountain solution. Seek paper supplier for solution.
	Improper setting of ink roller or water roller make plate damaged.	Check ink roller and water roller setting condition and operation situation.
	Mounting of blanket too loose or too tight.	Check the tightness of mounting of blanket according to maker's requirement.
	Intrusion of alien material to the ink transfer roller.	Check paper, ink and all cleaning agents. Avoid alien substance falling into the printing machine.
	The dot of picture/ letter loses because plate surface or blanket has captured some substance that do not attract to ink around.	Use better lubricated ink. Increase cleaning frequency of blanket. Discuss with your fountain solution supplier.

SOLUTION TO COMMON PROBLEM IN OFFSET PRINTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Bad overprinting	Tack value of ink not in correct printing order.	Confirm the decrease of tack value of ink according to printing order. But sometimes when print in the order of cyan–magenat–yellow, the lower tack value of black ink can reduce lint in paper.
	Color density of 4 process color not in concord. First print color has high density, and susequent color has low density. So there is difficulty in overprinting.	If ink has high color density and thick layer, then it is necessary to reduce color density of ink.
	Water / ink not good balance.	Adjust water / ink balance and keep it stable. Use less water and ink.
	Ink that print first has thick ink film. If possible, the one that print first should not have thick layer of ink than the one print later.	Suitably increase the denisty of ink so that ink film is thinner. But be careful if handle improperly would result in imbalance of color.
Stripping of ink roller	The surface of ink roller is already glossy and smooth or covered by incoming substance.	Wash and clean ink roller with suitable solvent and hot water.
	The PH value and conductivity of fountain solution is too acidic.	Check the PH and conductivity values of fountain solution and adust it to the specific value of of maker. Use suitable cleaning agent to wash ink roller. Discuss with your fountain solution maker.
	The stainless steel roller or copper roller has become wet and thus repels ink.	A) Replating of copper roller. B) Clear the covering substance on stainless steel roller, then re–apply ink after thoroughly dried.
	Too high color density of ink.	Reduce color denisty of ink and increase ink supply.
Picking (oil penetrate)	Not suitable hardness of ink roller (too soft or too hard).	Check hardness of ink roller, set it correctly and observe the condition of use etc.
	Ink roller or water roller set too tight.	Check and reset the setting of ink roller and water roller.
	Blanket mounting too thick or not tight.	Adjust the mounting of blanket and remount it with more tight.
	The oil–based cleaning agent has been used for too long.	Change new cleaning agent.
	Printing plate is not properly exposed.	Discuss with your plate making department.
	Not suitably use of fountain solution.	Adjust PH value and conductivity of fountain solution.
	Dampening system not well maintained.	Properly maintain dampening system. Clean and upkeep fountain solution water duct and valve.
	The composition and formulation of fountain solution not match with ink.	Discuss with your fountain solution supplier.
	Too thick ink film.	Change to use ink with higher color density.
Blanket crystallised.	Remove the glossy surface or replace blanket.	
Blocking	Too much supply of ink. The set time of ink on paper is too slow.	Use hot air blower to speed up set time. Discuss with your sales representative.
	Bad absorbing power of paper. Slow penetration of solvent is too slow.	Use more spray powder.
	Not suitable setting of spray powder --- either insufficient or not evenly spread.	Check printed paper under Lansco lamp. Check whether powder on paper is evenly spreaded or not. Adjust powder supply system when necessary.
	Paper stack too high.	Avoid paper stack too high or increase quantity of spray powder.
	Improper operation when moving paper. Paper blocking board not properly set.	Properly operate when moving paper. Re–adjust the blocking paper board.
Blur or ghosting	Most offer is caused by slipping of roller cylinder or printing machine.	Adjust and correct the printing condition.
	Oil on roller cylinder. Not suitable mounting of roller cylinder (too thick or too thin). The gear that pick up paper is not set properly.	Check printing condition.
	Blanket is too sticky or not mounted properly.	Use suitable blanket.
	Ink is too hard or has too high tack value.	Use softer kind of ink.
Picking (color penetrate)	Wrong PH value or conductivity of fountain solution.	Adjust the PH value or conductivity according to factory's specification. Discuss with your fountain solution supplier.
	Hardness of rubber roller not suitable or set wrongly.	Use suitable hardness of rubber roller and check its setting.
	Cleaning agent has been used for too long time.	Must clean thoroughly after using cleaning agent, and then clean with hot water .
	Too big pressure between plate roller cylinder and blanket cylinder.	Check and adjust the proper pressure.
	Fountain solution is contaminated by coating on paper and ink.	Use ink with least adhesion when possible. Use the least printing pressure and suitable fountain solution.
	Printing plate has not been properly exposed and developed.	Discuss with your plate making department.
	Cleaning agent is found in fountain solution.	Remove cleaning agent.
Fountian solution too high temperature or movng roller temperature too high.	Adjust to the temperature suggested by maker.	