



# GSN5 Alcohol-based Paper Gravure Ink

## 【Product description】

Main component include nitrocellulose resin, pigment and solvent. Pigment complies with relevant Chinese and international heavy metal regulation. This ink series is benzene and ketone free, ester and alcohol as main solvent.

## 【Application】

- ❖ Coated paper (70-250 grams), tipping paper, pre-coated gold & silver cardboard for cigarette packaging and wine packaging.
- ❖ Pre-coated aluminum foil, pre-coated cellophane.
- ❖ Common packaging papers (17-70 grams).

## Notices

- ❖ Substrates of glass cardboard, bronze & silver cardboard, aluminum foil must be pre-coated before printing, otherwise poor adhesion.
- ❖ Beware of poor ink leveling when printing on normal packaging paper as the surface of the paper is rough. Decrease solvent evaporation rate when printing.
- ❖ Since it is benzene free and odorless, GSN series is more eco- friendlier than GV series. Printed paper packaging is suitable for export purpose.

## 【Product features】

- ❖ Good colour saturation and strength, good printing performance.
- ❖ Good solvent release, odor free, suitable for slow, medium & fast printing.
- ❖ Good heat resistance, good anti-blocking performance and excellent post processing performance (bronzing, heat sealing, etc.)
- ❖ Good compatibility with our GSN and GAW OPV series.



### 【Standard Color】

Color	Code	Color	Code	Color	Code	Color	Code
Black	GSN5103A GSN5111	White	GSN5201GS N5201V	Yellow	5301 GSN5301V	Transparent yellow	GSN5313
Magenta	GSN5401 GSN5401V	Red	GSN5408 GSN5427V	Golden red	GSN5406 GSN5406V	Pink	GSN5416V
Cyan	GSN5501	Green	GSN5601	Orange	GSN5701	Violet	GSN5801
Red	GSN5404 GSN5409	Varnish (Medium)	GSN5981 GSN5981V				

#### Notices

- ❖ Varnishes and inks mentioned above are not compatible with gold powder and will cause stability issue. Please use GSN gold varnish for gold ink.
- ❖ GSN has a certain light fastness resistance, blue, purple, green and black can reach level 7 light fastness resistance; other colour can reach level 3-5. Please contact technical department if special light fastness requirement is needed.
- ❖ In case of any special requirements, please contact our sales representatives or technical staff.

### 【Dilution】

Solvent	Series	GSN#2		GSN#3	GSN#4
	GSN#1				
Ethyl acetate	50	50	—	—	—
Ethanol	50	—	—	—	40
Propyl acetate	—	50	100	90--95	—
Butyl acetate	—	—	—	—	60
Propylene glycol methyl ether	—		—	5--10	—

#### Description:

GSN1# is suitable for high speed printing.

GSN2# is suitable for dot over-dye.

GSN3# is suitable for single gravure press and dot printing.

GSN4# is suitable for low speed packaging paper and at high temperature environment.



### 【OPV】

Product code Application	GSN5901	GSN5903L	GSN5907
Uses	Cigarette package	Cigarette package	Cigarette package
Properties	High gloss	High gloss, curl free	High gloss
Advantages	Alcohol ester soluble OPV	Alcohol ester soluble curl free OPV	Alcohol ester soluble OPV
Solid content (%)	29-31	29-31	26-29
Solvent	Alcohol ester mix	Alcohol ester mix	Ethanol
Printing viscosity	15~20/Z3#	15~20/Z3#	15~20/Z3#
Amount to add	Solvent OPV 0.2~0.5:1		

#### Notice:

Excess dilution of OPV will decrease rub and scratch resistance causing a decrease in gloss.

Excess addition of slow drying solvent will cause blocking and high residual solvent issue.

### 【Water base OPV】

Product code Application	GAW59006	GSN8900	GSN59553B	GSN5930T
Resin system	Water base acrylic	Water base acrylic	Water base acrylic	Water base acrylic
Solid content (%)	36±1	37±1	37±1	36±1
Uses	Gravure print	Dry gravure	Offset	Gravure print
Properties	Bronzing, high gloss, good rub resist., good leveling, low odor	High gloss, High rub resist., good leveling, low odor	High gloss, High rub resist., good leveling, low odor	High gloss, High rub resist., good leveling, low odor, good bronzing performance
Solvent	Water/alcohol (IPA) (6/4-1/9) Standard 5:5	Water/alcohol (IPA) (6/4-1/9) Standard 5:5	Water/ethanol (6/4-1/9) Standard 5:5	Water/ethanol (6/4-1/9) Standard 5:5
Drying temp.	>90 °C	>90 °C	>90 °C	>90 °C
Printing condition	Viscosity: 13-15 sec/ ZC3# Line: 200 Cell depth: 20-30 μ			



**Notice:**

Excess dilution of OPV will decrease gloss and rub resistance.

Ethanol or IPA should not be mixed with OPV directly; it should be mixed with water separately before mixing with OPV.

OPV should not be stored below -10°C.

New products can be developed to suit customer's special need.

**【Varnish for gold colour】**

Product code Application	GSN5923A	GSN5923C	GSN5925
Appearance	Transparent	Cloudy white	Transparent
Viscosity	12~20" Z3	12~20" Z3	16~25" Z3
Solid content (%)	29-31	29-31	26-29
Solvent	IPA:EA 1:1 or 4:6	IPA:EA 1:1 or 4:6	100% Anhydrous ethanol or 100% IPA
Printing viscosity	18~24" Z2#	18~24" Z2#	18~24" Z2#
Resin	Acrylic	Acrylic	PVB

**Notice:**

Gold powder content should be below 40% or might cause colour fade, bracing or separation issue.

GSN series ink should not be added as this will cause gelation issue. Only specified ink series can be added.

**【Disclaimer】**

This specification is in accordance with the actual production and test results, whether the product could meet your process requirements depends on application conditions and printed material. We recommend the users to assess if the product can meet all their requirements before production. Since we cannot predict or control your printing condition, the product performance cannot be guaranteed all sales are subjected to the standard terms and conditions of the sales control division.