# Printing Layer Structure

for typical Heat Transfer Label with **ADg Ink System**

## Notes

1. Use same ink grade of ADg Ink and ADg transparent Medium in same Label. (ex) ADg-W23 ink with ADg-W23TP, ADg-W06 ink with ADg-W06TP

2. To print Reflective heat transfer label, replace the PET release coating film (ADg-RF5MS2 or ADg-RF5MT2) with reflective sheet material (ADg-RFL3Y or ADg-RFLMC) and use ADg-W23 ink / ADg-W23TP for printing.

3. The adhesive layer also designed by label’s fastness requirement.
   - a) Screen print ADg-WG1 or ADg-WG1B Screen printable Hot Melt Adhesive.
   - b) Spread and attach ADg-GL Px onto PA, TPU Hot Melt Powder Adhesive are available.
   - c) combine a) and b) method

* The number of times of printing for each layer is decided by the result of your test production. The layer printed thicker shows its effect more. For more detail, please refer our printing guide.

## Label Drying (Heat Curing) Method

### During printing process, after each printing step

- **a) Natural-dry** (dry until “set-to-touch”)
  - ADg-W23WH, ADg-W23TP, ADg-W23 ink,
  - ADg-W06WH, ADg-W06TP, ADg-W06 ink,
  - ADg-WGL, ADg-WGLB, ADg-WTB

- **b) Dry in oven is strongly recommended** (60°C, 20min, recommended range: 50-80°C, 15-30minutes). Natural-dry also works but it performs not enough in high-fastness requirement.
  - ADg-WDMR

### After finishing whole printing process

- **a) the label finished with screen-printed adhesive**
  - 60-95°C, 0.5-8 hours (depends on Label’s thickness and environmental humidity)

- **b) the label with spreaded Hot melt powder**
  - 1st step – melt the powder
  - 5-30 seconds with 5-15°C higher temperature than the melting point of the hot melt powder
  - 2nd step – dry and cure label body
  - 60-95°C, 0.5-8 hours (depends on Label’s thickness and environmental humidity)

## Recommended Mesh count (inch)

- #120 - #250 is recommended for ink and transparent medium
- #80 - #120 is recommended for ADg-WDMR and ADg-WGL
- #100 - #150 is recommended for ADg-WTB

Please consider the artwork fineness and ink volume balance.

## How to Mix Color Ink

### Normal Color

**Ink base:**

(Transparent Medium 0 - 90% + White Ink 10 - 30% (max100%))

- White + More White = More Density
- White + More Transparent = More Clear Color

**Pigment:**

- 0 - 10% additional

### Shiny Silver Color

**Ink base:**

(Transparent Medium 100%)

**Pigment:**

- 10 - 30% additional

### Ink grade difference

#### ADg-W23 grade (2 pack system)

ADg-W23WH White ink / ADg-W23TP Transparent Medium

The label printed with ADg-W23 grade has excellent fastness, high scratch and scuff resistance, high elasticity and stretchability, very soft and thin hand feel.

Also high transparence of ADg-W23TP is the best match to reflective label with high reflection.

#### ADg-W06 grade (1 pack system)

ADg-W06WH White ink / ADg-W06TP Transparent Medium

This grade is the first choice for all purpose of heat transfer label, and will satisfy high requirement from your famous brand customer.

The label printed with ADg-W06 grade has excellent fastness, high scratch and scuff resistance, high elasticity and stretchability. Also, ADg-W06 grade can handle easier than ADg-W23 grade because this grade is 1 pack system.

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