

Impression of SIHL Thermal Papers

Printing Inks

In General

Your chosen ink should be both suitable and recommended for the printing of direct thermal material(s).
i.e. it has to be resistant up to a temperature of +240°C.

The following list of inks has been compiled as each has proven to work well with Sihl thermal papers.

<u>Printing ink manufacturer</u>	<u>Printing process</u>	<u>Product Series</u>
Akzo Nobel	Waterbased Flexo UV - letterpress UV - Flexo UV - Offset	Thermokett TC Uvofoil Beta Uvoflex (Flexocure) Lithocure
Fishburn Ink	UV - letterpress	Rotalabell + ZF 2970
Hartmann	Waterbased Flexo	Flexpak CF Hapobond F 105
Michael Huber München	Waterbased Flexo	Series 16 NEH
Jänecke + Schneemann	UV - Offset	UV - Supra
Sicpa	Waterbased Flexo UV - letterpress UV - Wet offset UV - Flexo	Bargoflex 53.1 (Crosslinker 53.41) Bargoflex 53.20 Aqualabel HK (TOP and Alpha with 2% crosslinker) Sicura 41-2 Typostar 32-8 UV Tronic Serie 588 Sicura Serie 565 Sicuraflex 39-2
Siegwerk	UV - Offset	UV - Rainbow Serie M030
Zeller + Gmelin	UV - letterpress / Offset	Uvalux U 4 Euracur U 5 Uvaflex Y
Van Son	Waterbased Flexo UV - letterpress	Aquaprint Quickson Special
ICI, Edward Marsden	Waterbased Flexo UV - Flexo UV - Wet offset	Shearwater Thermal Inks Emiflex UV Inks Eurocure Intense UV Inks Eurocure Vinyl UV Inks

This Information has been made available from the ink suppliers and should be considered only as advice.
It is not offered as a guarantee and does not release the user from his/her duty to make corresponding tests.

[* {.../AT/Datenblätter/INFOS/ Thermo - Druckfarben - E} E-AT wl 2014-04-24]



Sihl GmbH, Düren Tel.: +49 (0)2421-597-0 E-Mail: info@sihl.de
ISO 9001 - ISO 14001 - ISO 50001 - OHSAS 18001 approved

Impression of SIHL Thermal Papers

Flexo- and Letterpress Printing

In principle, SIHL thermal papers may be printed with all standard printing processes, however a few basic tips may be helpful.

In General

- Your chosen ink should be both, suitable and recommended for the printing of direct thermal material(s).
i.e. it has to be resistant up to a temperature of +240°C.

Flexo- and Letterpress Printing

- For avoiding unintended reactions of the thermal layer the printing ink has to be free of solvents.
Furthermore the drying temperature should not be too high.
- While using UV-inks a higher viscosity of the inks has a positive effect on the printing result.
- Suffering insufficient drying of the UV-inks?
Try the following measures:
 - Too much ink - a higher coating thickness could occur problems; if need raster screen cylinders with lesser volume should be used.
 - To add blend varnish
 - To print dark colours first if possible.
 - To use additional UV-lamps
 - To add 1- to max. 2% photoinitiator.
- Printing thermal papers is in general not easy, which is why a technical consultation from SIHL or from the ink supplier could be beneficial.

This basic information should not prevent the intended user from carrying out necessary print trials. Ink/substrate compatibility tests on press are always recommended so as to ensure successful long-term conversion of Sihl materials and trouble free printing.

[* {.../AT/Datenblätter/INFOS/ Thermo - Flexo - E} E-AT wl 2014-04-24]

Impression of SIHL Thermal Papers

Offset Printing

In principle, SIHL thermal papers may be printed with all standard printing processes, however a few basic tips may be helpful.

In General

- Your chosen ink should be both, suitable and recommended for the printing of direct thermal material(s).
i.e. it has to be resistant up to a temperature of +240°C.

Wet Offset Printing

- Ink-manufacturers generally recommend special (UV-) inks for thermal materials.
- The inks should have low viscosity, their tackiness may be reduced by using suitable additives (i.e. Anti-Tack Additive).
- Print speed is most important - our experience shows that equipment should be slowed in case of difficulties.
- Printing plates with low water absorption have proven to be the most suitable.
In general: the smoother the plate the better the end results
- The solution should contain between 5 and 15% isopropanol, preferably 8%.
- Topcoat thermal papers have a protective layer which limits ink and water absorption. The amount of water applied should be kept as low as possible.
- Non-topcoat thermal papers are without this special protective layer. The surface has a much higher rate of absorption than topcoat-papers. It is recommended to use quick release rubber blankets (QR).

Printing thermal papers UV-Offset can be problematic and may depend upon the individual circumstances of the converter.

This basic information should not prevent the intended user from carrying out necessary print trials. Ink/substrate compatibility tests on press are always recommended so as to ensure successful long-term conversion of Sihl materials and trouble free printing.

[* SI / AT / Datenblätter / INEOS / Thermo - Offset - ELE-AT.wd 2014-04-24]