

Revolutionising textile printing

RICOH
imagine. change.

Extend your latex textile application capabilities

A world of printing possibilities
from Ricoh and Neenah



NEENAH COLDENHOVE

Welcome to the textile printing revolution

In a world where ink technology, colour reproduction and textile printing is constantly evolving and advancing, you need a business partner to help you stay ahead of the competition and give your business the edge.

With our cutting edge technology, innovation and market expertise, as well as high quality, productivity and great value, Ricoh can help you grow your business and offer your customers a unique textile latex printing solution.

Working with leading digital paper manufacturer, Neenah Coldenhove, using their industrial pigment transfer paper, Texcol®, we've taken textile colour printing to a whole new level.

Expand your Latex applications using Texcol® transfer paper and Ricoh Latex ink formula by printing on natural fabrics.



Transform your business with Ricoh latex technology and Texcol[®] media solutions

When two industry experts come together, you know it's going to lead to new levels of print innovation and technology development. The partnership between Ricoh and Texcol[®] paper manufacturer, Neenah Coldenhove, doesn't disappoint. Together they've transformed the world of latex textile applications, giving you an opportunity to increase productivity, enhance performance and expand the range of print services offered to your clients.

The Ricoh Latex Pro[™] L5130e/Pro[™] L5160e technology advantages

- A simple media transportation path with front take up reel
- Easy textile roll loading from the top of the device offering media stability
- Industrial and robust media system delivery high productivity on long print runs
- Dedicated ICC profiles for Texcol[®] material and Ricoh latex inks low print temperature
- Industrial Ricoh Gen-5 printheads with variable dot size for better ink consumption and quality
- Low temperature operation with 3 heaters and an infrared dryer to secure ink curing
- Orange and Green colours available for a wider colour gamut on textile materials

Ricoh - putting you and your business first

- Partner with Ricoh and you'll access leading edge ink jet and software technology offering both device and application flexibility
- Our dedicated Customer Experience Centre and Ink-Jet Lab in Telford gives you the opportunity to see our technology in action
- Benefit from the peace of mind that our world class service and solutions team are available to provide support whenever you need it

Meet the digital transfer experts

TEXCOL®

Neenah Coldenhove's newly developed digital transfer paper allows you to print on a wide range of natural fibre textiles, using a waterless process. The advantages speak for themselves...

- Texcol® V1.0 can be transferred to textile without any pre treatment. So NO "PFDP" just "PFP" - this means that the textile can be much cheaper than in direct printing
- Colours are 30% brighter than direct printing which makes them almost comparable with reactive ink
- Because of the colour intensity an ink reduction is possible to get same results as with direct printing
- Very cost effective for small to medium size runs because of lack of coated textiles
- No need to change textile on the printer for any new job (on another type of textile)
- Very little waste because no unprinted lead-out textile on the printer

The advantages of Texcol® media

- Texcol® V1.0 is a pigment transfer paper developed for the decoration of cotton, linen, natural fibres, textile wallcovering, sun screens, curtains and many home textile products like table runners, bags, paintings, partition walls etc
- Texcol® V1.0 can be digitally printed with either latex inks or pigment textile inks
- Texcol® V1.0 has 2 coating layers, an ink receptive coating and a transfer coating.
- Multifunctional coating delivers high print quality, initiates the transfer process and delivers good fastnesses.
- Designed for applications which are not in direct skin contact (curtains, sunscreens, wall covering, partition walls, bags)
- The image transfer to the textile with a heatpress or a calender suitable calenders; Monti Model 855, Model 902. Klieverik GTC
- Pressure impuls on calender is required for good result (= special pressure bar)
- Mainly suitable for white- or light colored textiles (because the coating is transparent)
- Texcol® V1.0 is currently not designed for constant skin contact applications, that's because the coating of Texcol® may influence the handle of the textile



Putting the focus on our customers and meeting their market needs

Technology designed for professional textile printers

- **Are you a printer working in Digital Dye Sublimation or latex printing?**

With Texcol® technology you can expand your business with existing equipment to natural fibres (cotton, linen, cotton/poly blends etc)

- **Are you a printer working with direct pigment?**

With Texcol® technology you will overcome some of the challenges you may currently face such as: pretreatment of textile before printing, textile waste in lead out, not being able to print vibrant colors, the required adjustments of the settings when printing on various textile grades

- **Are you a printer working with reactive printing?**

With Texcol® technology you will be able to start Digital Transfer Printing with pigment inks at a low cost and with an easy, one step process

Solutions to meet our customers specific printing needs

Our customers tend to be early adaptors of the Texcol® technology and are either:

- Current sublimation printers working with sublimation paper or
- Printers working with latex based pigment inks

These customers often have the equipment and the knowledge to print with Pigment Textile Inks and transfer their design to a natural fibre using the Neenah Coldenhove instructions.

For the sublimation printers, the only change needed is to convert one of their printers from Dye Sub Ink to Pigment Textile Ink. This single change will allow them to service a completely new market of natural fibres.

Latex printers can use their existing printer and ink and invest in a calender to transfer the designs from paper to the textile.

The Texcol® V1.0 technology will especially be suitable for the smaller and mid-size companies who do not have a coating line to pre-treat textiles in-house. The Texcol® coating makes the applying of a special pretreatment with an ink receptive layer obsolete.



Learn more
about Texcol®
media by
scanning the QR
code to watch
our latest video

Transfer process of advanced Ricoh print technology & Texcol[®] pigment transfer paper



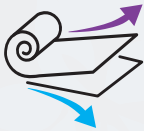
Digital Image is printed on Texcol[®] paper with Ricoh Pro[™] L5130e/Pro[™] L5160e latex ink technology



Printed roll of Texcol[®] paper goes to heat press or calender at the required speed, temperature, pressure settings



Printed roll of Texcol[®] paper together with the chosen natural fibre is fed into the calender



The paper and textile separate on the calendar immediately after ink transfer



Inks are transferred onto the textile and are ready for further use

Endless textile printing opportunities

It's never been easier to expand and grow your business to offer your clients a wide range of textiles and printing media...

- Window coverings (curtains/blinds)
- Pillows, lounge seats, cushion covers
- Sunscreens, sunbeds, triangle sun protection
- Partition walls, textile wall decoration
- Table covers
- Gifts including bags and aprons
- Synthetic leather
- POS materials



Textile printing solutions that are good for your business and the environment

Ricoh takes a greener approach

Environmental responsibility is an important part of Ricoh's DNA and our commitment to sustainability runs through our entire range of products and services.

- With minimal environmental impact, our eco-friendly latex inks are water based and contain resin, not solvent
- The Pro™ L5100e printer is odourless which makes installation and operation easy and safe, with no requirements for specialist ventilation
- The device generates low VOC* emissions making it a safer and healthier option for the operator
- We are proud that our printer has been awarded the Green Guard Certification (Gold) in recognition of the low chemical emission and improved air quality in the area where the printer is used
- Using a low print temperature means the printer has a low energy consumption

*VOC - Volatile Organic Compounds



Neenah Coldenhove helps you reduce your carbon footprint

- Since 2008, all Neenah Coldenhove paper grades, including our Texcol® papers, are produced from FSC wood fibres
- Since 2014 hundreds of solar panels have been placed at Neenah Coldenhove. In the last four years the panels have produced more than 70 MWh of energy which has been used successfully throughout our production lines and to charge the electrical company cars
- At Neenah Coldenhove, we recover the excess heat to preheat the water for the paper production which lead to a considerable saving in gas consumption per year
- Any residual heat is used to heat-up the offices and the local public swimming pool
- Neenah Coldenhove is co-owner of a waste water treatment plant which secures the filtering of all production waste water which is then re-used by us and neighboring paper mills in the village of Eerbeek, The Netherlands.



Textile printing specification

SYSTEM SPECIFICATIONS

APPLICATION TYPES

- ENVIROMENT TYPES FOR TEXCOL® APPLICATIONS

List of possible applications with Texcol® media:

- Curtains, table covers, sunscreens, pillows, textile wall decoration, partition walls, art objects, POS Material, sunbeds, synthetic leather, triangle sun protection, lounge sets, cushion cover

Sample of possible invironments for Texcol® applications (Exibtions, Offices, Home....)

- All environments where textile can be used which appreciates high color intensity, great color fastness. This is not limited to certain places or environments.

TECH. INFORMATIONS

- FINISHING DEVICES NEEDED AND SETTING

Techn Info:

- Texcol® paper must be stored at room temp. for 48 hours before printing
- Texcol® paper is slightly sticky which does not affect the quality or runability
- Printed paper must be touch dry before on-winding on the printer
- Make sure that the Textile is PFP and has no wrinkles or slack edges

Finishing devices:

- Calenders like Monti model 855, 902 or Klieverik GTC
- It is essential that the calender has a pressure impuls on Paper + Textile before the heating cylinder between 4 and 6 bar.
- Advised temp is between 170 and 200 degrees C (beware for decoloring)
- Advised speed is between 30 en 50 seconds contact time

NEENAH COLDENHOVE INFO:

WEBSITE / ORDER INFO / LINKS / VIDEOS

Web

<https://www.coldenhove.com/products/texcol/>

Order info

Paper is available in rolls of 140 or 150 cm width and a length of 120 linear meters. 30 rolls/pallet
Sample rolls are available

Video Links

Learn more about Texcol® media by scanning the QR code below to watch our latest video



Ricoh Pro™ L5130e/L5160e

SYSTEM SPECIFICATIONS

GENERAL

Ink Type	V.2 AR (Aqua Resin) Ricoh Durable Latex ink
Head Type:	Ricoh GEN5 high speed piezo durable print heads (MH5421)
Resolution:	450dpi, 600dpi, 900dpi, 1200dpi
Dimensions	(W x D x H)
Pro™ L5130e:	3050mm x 1000mm x 1500mm
Pro™ L5160e:	3300mm x 1000mm x 1500mm
Weight:	Pro™ L5130e: less than 365kg Pro™ L5160e: less than 385kg
Power Source:	AC220-240V 16A 50/60Hz x 2 lines
Power Consumption:	Less than 6000W
Sleep:	Less than 5.2W
Off:	Less than 0.3W
Interface:	Ethernet (100BASE-TX/1000BASE-T)
Ink Set Combinations:	4-colour mode (CMYK) 5-colour mode (CMYK + White) 6-colour mode (CMYK + Orange + Green)
Droplet Size:	5pl
Curing Time:	Fast curing for secondary processing such as lamination thanks to "IR" Infrared drying-heater system on board.
Curing Method:	3Way (Pre-Print-Post) Heater + IR Heater
Media Weight:	55kg or less
Media Feed Length:	Maximum 300m or less
Roll Outside Diameter:	Maximum 250mm or less
Roll Inside Diameter:	3 or 2 inches

LAB TEST

Standards Test:

- EN ISO 105-X12:2016
- Textiles – Tests for colour fastness
- Part X12: Colour fastness to rubbing (ISO 105-X12:2016); German version EN ISO 105-X12:2016

Test chart samples printed on:

- Fastness Test printed on Ricoh Pro™ L5160e 4C/6C device
CMYK Orange and Green only on Texcol® media using Neenah Texcol® 12pass 600x900dpi profile.

Apparatus and Reagents:

- HeatPress - LTS 550 PSA (Pneumatic Heat Press)
- Crockmeter - James Heal

HeatPress Parameters:

- 40°200°C; 6 bar

Media Types Tested:

- Satin/Poplin/Half Panama/Drill/Canvas

For Test results details please contact local Ricoh offices, or your local Sales representative



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