



Technical Data Sheet

TPC 180

1- or 2- Component Pad Printing Ink

TPC 180_en2.doc

20.11.2008 / 24.07.2008 / Lgg

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1- or 2- Component Pad Printing Ink TPC 180

Application

For duroplastics, wood, coated surfaces, various metals, paper polyamide, polyacetal (post-treated), pre-treated polyethylene and polypropylene, polycarbonate, polyester, PMMA, polystyrene, polyurethane, rigid PVC, as well as compact discs.

Properties

Ink type TPC 180-NT is quick drying and glossy. Opacity and printability are very good. Pad printing inks TPC 180-NT are suitable for rotary printing.

TPC 180 mixed with UV-resistant hardener HR brings only moderate weather resistance.

Colour Shades

The colour shades of the TPC 180-NT range show heavy metal free pigmentation and correspond to EN 71, part 3, safety of toys, migration of certain elements.

Ink Colour Programme

Standard Shades

TPC 180/10-NT light yellow
TPC 180/11-NT dark yellow
TPC 180/12-NT orange yellow
TPC 180/15-NT orange
TPC 180/17-NT ochre
TPC 180/20-NT light red
TPC 180/21-NT red
TPC 180/22-NT dark red
TPC 180/25-NT pink
TPC 180/30-NT luminous blue
TPC 180/31-NT blue
TPC 180/32-NT dark blue
TPC 180/33-NT black blue
TPC 180/34-NT light blue
TPC 180/37-NT violet
TPC 180/40-NT light green
TPC 180/41-NT dark green
TPC 180/42-NT turquoise

TPC 180/50-NT light brown
TPC 180/51-NT dark brown
TPC 180/60-NT white,
TPC 180/65-NT black

Other shades can be manufactured subject to our special ink shade regulation.

Highly Opaque Standard Shades HD

TPC 180/10-HD-NT light yellow highly opaque
TPC 180/11-HD-NT dark yellow highly opaque
TPC 180/12-HD-NT orange yellow highly op.
TPC 180/15-HD-NT orange highly opaque
TPC 180/20-HD-NT light red highly opaque
TPC 180/21-HD-NT red highly opaque
TPC 180/22-HD-NT dark red highly opaque
TPC 180/30-HD-NT luminous blue highly op.
TPC 180/37-HD-NT violet highly opaque
TPC 180/40-HD-NT light green highly opaque
TPC 180/60-HD-NT white highly opaque
TPC 180/65-HD-NT black highly opaque

Process Colour according to European Scale

TPC 180/180-NT euro yellow
TPC 180/181-NT euro magenta
TPC 180/182-NT euro cyan

Mixing System Base Colours

TPC 180/GF-01-NT lemon yellow
TPC 180/GF-02-NT gold yellow
TPC 180/GF-03-NT orange
TPC 180/GF-04-NT scarlet
TPC 180/GF-05-NT magenta
TPC 180/GF-06-NT red
TPC 180/GF-07-NT violet
TPC 180/GF-08-NT blue
TPC 180/GF-09-NT green
TPC 180/GF-11-NT white
TPC 180/GF-12-NT black
TPC 180/GF-13 varnish

For mixing of colour shades the formulations listed in the GF-recipe-catalogue can be used as a guide.



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Metal Colour Tones

TPC 180/75-NT rich gold
TPC 180/76-NT rich-pale gold
TPC 180/77-NT pale gold
TPC 180/78-NT copper
TPC 180/79-NT silver

Metal Gloss Inks

TP 180/75-MG rich gold
TP 180/76-MG rich-pale gold
TP 180/77-MG pale gold
TP 180/78-MG copper
TP 180/79-MG silver

Adjustment for Pad Printing

Prior to processing pad printing inks TPC 180-NT are adjusted with approx. 15-30% thinner VD. For retardation use ZG.

In order to meet higher demands regarding mechanical and chemical resistance as well as adhesion, ink type TPC 180-NT may also be used as a 2-component printing ink.

Mixing ratio pad printing ink TPC180-NT : hardener HN is 10 : 1 parts by weight.

Pot life of the mixed ink is approx. 10 hours. After this time adhesion and resistances might be reduced, even if the ink still seems to be liquid and processable.

Drying

Ink type TPC 180-NT air dries, i.e. by evaporation of solvents. At room temperature (20-25 °C; 68-77 °F) drying time is approx. 2-3 minutes.

With heat application and air circulation 30-60 seconds. It will take approx. 24 hours to completely cure.

If processed as 2-component ink mechanical and chemical resistances will only be achieved after 4 ... 5 days.

Cleaning

For cleaning of stencils and tools our universal cleaning agent RE can be used.

Screen Spray cleaning agent should not be used when processing 2-component inks, as it might have a bad effect on the pot life of these inks.

Packing

TPC 180-NT inks are available in 1 litre cans (approx. 1.06 qt.) and 200ml tubes only.

Metal Colour Inks in 1 litre and 200ml-tin.

Hardener HN and HR are available in 1 litre cans and 100 ml tubes.

Shelf Life

For information regarding shelf life please see tin label.

Marking

Read material safety data sheets prior to processing.

The material safety data sheets according to (EG) 1907/2006 contain marking in compliance with the regulation on dangerous preparations (1999/45/EG) as well as instructions for precautions when processing, handling and storing as well as first aid.

The information given in the material safety data sheet refers to processing as described in this product data sheet.

The statements in our leaflets and safety data sheets are based on our present experiences, however they are no assurance of product properties and do not justify a contractual legal relationship. They serve to advise our business associates, but it is absolutely necessary to make your own printing tests under local conditions, with regard to the intended purpose prior to starting the job.

- All former leaflets are no longer valid. April 2008. Version Nr.4