

1- or 2-Component Pad Printing Ink TPC 320

Application

For all kinds of thermoplastics, especially for ABS, polystyrene and its copolymers, rigid PVC, PMMA and polycarbonate. For sufficient adhesion on polyester, polyamide and other duroplastics pre-treatment (corona or flame treatment) may be required.

Properties

TPC 320-NT inks are very quick drying and weather resistant. They show good processing properties, high gloss and good resistance against benzene and alcohol especially when the ink is processed with hardener HN.

TPC 320 mixed with UV-resistant hardener HR brings **very high weather resistance**.

Colour Shades

The colour shades of the TPC 320-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 320/10-NT citric yellow
TPC 320/11-NT medium yellow
TPC 320/12-NT dark yellow
TPC 320/15-NT orange
TPC 320/17-NT ochre yellow
TPC 320/20-NT light red
TPC 320/21-NT bright red
TPC 320/22-NT carmine red
TPC 320/25-NT pink
TPC 320/30-NT light blue
TPC 320/31-NT medium blue
TPC 320/32-NT ultra blue
TPC 320/33-NT dark blue
TPC 320/34-NT turquoise
TPC 320/37-NT violet
TPC 320/40-NT light green

TPC 320/41-NT fir green
TPC 320/42-NT brilliant green
TPC 320/50-NT light brown
TPC 320/51-NT dark brown
TPC 320/60-NT white
TPC 320/65-NT black

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

Standard Shades in High-Density

TPC 320/10-HD-NT citric yellow highly opaque
TPC 320/11-HD-NT medium yellow highly opaque
TPC 320/12-HD-NT dark yellow highly opaque
TPC 320/15-HD-NT orange highly opaque
TPC 320/20-HD-NT light red highly opaque
TPC 320/21-HD-NT bright red highly opaque
TPC 320/22-HD-NT carmine red highly op.
TPC 320/30-HD-NT light blue highly opaque
TPC 320/37-HD-NT violet highly opaque
TPC 320/40-HD-NT light green highly opaque
TPC 320/60-HD-NT white, highly opaque

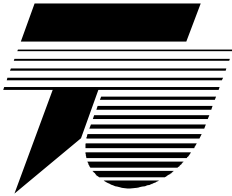
For mixing of colour shades the formulations listed in the GF-recipe-catalogue can be used as a guide.

Process Colour according to European Scale

TPC 320/180-NT yellow
TPC 320/181-NT magenta
TPC 320/182-NT cyan

Mixing System Base Colours

TPC 320/GF-01-NT primrose
TPC 320/GF-02-NT golden yellow
TPC 320/GF-03-NT orange
TPC 320/GF-04-NT scarlet
TPC 320/GF-05-NT magenta
TPC 320/GF-06-NT red
TPC 320/GF-07-NT violet
TPC 320/GF-08-NT blue
TPC 320/GF-09-NT green
TPC 320/GF-11-NT white
TPC 320/GF-12-NT black
TPC 320/GF-13 varnish



Metal Colour Tones

TPC 320/75-NT bright gold
TPC 320/76-NT medium gold
TPC 320/77-NT bronze
TPC 320/78-NT copper
TPC 320/79-NT silver

Metal Gloss Inks

TP 320/75-MG-NT rich gold
TP 320/76-MG-NT rich-pale gold
TP 320/77-MG-NT pale gold
TP 320/78-MG-NT copper
TP 320/79-MG-NT silver

Adjustment for Pad Printing

Prior to processing pad printing inks TPC 320-NT are adjusted with approx. 10-30% thinner VD (quicker) or VG (faster). For retardation use ZG.

In order to meet higher demands regarding mechanical and chemical resistance as well as adhesion, ink type TPC 320-NT may also be used as a 2-component printing ink.
Mixing ratio pad printing ink:

TPC 320-NT: hardener HN / HR is 10:1 parts by weight.

Pot life of the mixed ink is approx. 8 hours. After this time adhesion and resistances might be reduced, even if the ink still seems to be liquid and processable.

Drying

Pad printing inks TPC 320 are air drying, i.e. they dry by evaporation of solvents contained in the ink.

At room temperature (20°C...25°C) drying time is approx. 30...60 seconds. Heat application and air circulation will reduce drying time. Depending on the substrate the inks are completely cured within a few hours.

Processed as 2-component system mechanical and chemical resistances are not achieved until the ink is fully cured (approx. 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 320-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 and tube end closer.

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 working materials 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 technical leaflet.

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.5