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TPC250\_en1.doc

# Technical Data Sheet

## TPC 250

### 2-Component Pad Printing Ink

## 2-Component Pad Printing Ink TPC 250

### Application

For glass, duroplastics, ceramics, metals including chromium and nickel-plated, gilded or rhodium coated surfaces.

### Properties

Pad printing inks TPC 250-NT can be air-dried or oven-cured. They result in a semi-gloss finish of good opacity. TPC 250-NT inks show high mechanical resistance and resistance to many organic solvents, chemicals, thinned alkalines and acids, oils and grease.

Excellent water resistance is achieved with hardener HH and air drying. Resistance to various solvents, however, is limited.

Using hardener HG and oven-curing at 140°C for 20 minutes will result in very good resistances. Prints made with HG show a high degree of gloss.

Hardener HI comprises the good properties of the two hardeners mentioned above.

Hardener HI air dries or cures by heat application within 20 minutes at 140°C.

### Colour Shades

The colour shades of the TPC 250-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 250/10-NT citric yellow  
TPC 250/11-NT medium yellow  
TPC 250/12-NT dark yellow  
TPC 250/15-NT orange  
TPC 250/17-NT ochre yellow  
TPC 250/20-NT light red  
TPC 250/21-NT bright red  
TPC 250/22-NT carmine red

TPC 250/25-NT pink  
TPC 250/30-NT light blue  
TPC 250/31-NT medium blue  
TPC 250/32-NT ultra blue  
TPC 250/33-NT dark blue  
TPC 250/34-NT turquoise  
TPC 250/37-NT violet  
TPC 250/40-NT light green  
TPC 250/41-NT fir green  
TPC 250/42-NT brilliant green  
TPC 250/50-NT light brown  
TPC 250/51-NT dark brown  
TPC 250/60-NT white  
TPC 250/65-NT black

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

#### Process Shades according to European Scale

TPC 250/180-NT yellow  
TPC 250/181-NT magenta  
TPC 250/182-NT cyan

#### Mixing System Base Colours

TPC 250/GF-01-NT primrose  
TPC 250/GF-02-NT golden yellow  
TPC 250/GF-03-NT orange  
TPC 250/GF-04-NT scarlet  
TPC 250/GF-05-NT magenta  
TPC 250/GF-06-NT red  
TPC 250/GF-07-NT violet  
TPC 250/GF-08-NT blue  
TPC 250/GF-09-NT green  
TPC 250/GF-11-NT white  
TPC 250/GF-12-NT black  
TPC 250/GF-13 varnish

#### Metal Colour Tones

TPC 250/75-02-NT bright gold  
TPC 250/76-07-NT medium gold  
TPC 250/77-05-NT bronze  
TPC 250/78-NT copper  
TPC 250/79-08-NT silver

#### Metal Gloss Inks

TPC 250/75-MG-NT bright gold



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TPC 250/76-MG-NT medium gold  
TPC 250/77-MG-NT bronze  
TPC 250/78-MG-NT copper  
TPC 250/79-MG-NT silver

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

#### Adjustment for Pad Printing

Pad printing inks TPC 250-NT are mixed with hardener HG / HI / HH prior to processing. Mixing ratios (parts by weight) should be:

20 parts ink TPC 250 : 1 part hardener H ..

The inks are adjusted to printing consistency with 15-30% thinner VS. For retardation use ZG. Should flow problems occur use of special thinner VX is also possible.

The pot life of the mixed ink is approx. 8 hours. After this time adhesion and resistance might be reduced, even though the ink still seems liquid and processable.

#### Drying

2-component pad printing inks TPC 250-NT mixed with hardener dry chemically/ physically. At room temperature (20-25°C; 68-77°F) drying time is approx. 10-15 minutes. Heat application and air circulation will reduce drying time to approx. 40-60 sec.

TPC 250-NT may also be oven cured at 140°C (284°F) for 20 minutes.

When air drying the prints they will only reach their full mechanical and chemical resistances after 5-6 days curing time.

#### 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 250-NT inks are available in 1 liter cans (approx. 1.06 qt.) and 200ml tubes only.

Hardeners HG, HH and HI are available in 100ml tubes and 1 liter cans (approx. 1.06 qt.).

#### 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 91/155/EWG 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. December 2004 – Version no. 3**